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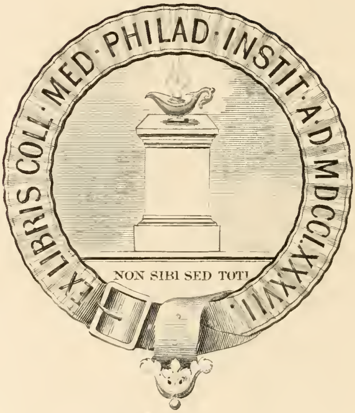
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THE

AMERICAN PRACTITIONER:

A MONTHLY JOURNAL OF

MEDICINE AND SURGERY.

EDITED BY

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LOUISVILLE, KY.:
JOHN P. MORTON & COMPANY,
PUBLISHERS.

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THE AMERICAN PRACTITIONER.

JULY, 1874.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Communications.

ON THE DISEASES OF THE MIND.*

BY L. P. YANDELL, M. D.

The resounding lines of the grand old moralist, Dr. Johnson,

"Pour forth thy fervors for a healthful mind,
Obedient passions, and a will resigned,"

are a paraphrase of the line of Juvenal, which has been quoted by physicians oftener perhaps than any other line in any language—

"*Orandum est, ut sic mens sana in corpore sano.*"

And assuredly no greater earthly blessing could be prayed for than such a conjunction—a healthy mind in a body free from all taint of disease. How rarely this happy union is found in this world few persons stop to consider—how seldom either a perfectly healthy body or a mind perfectly balanced is met with. In reality, one of these is about as uncommon as the other; and yet, as to most of the persons we meet, it never occurs to us to doubt their sanity of mind or body. They are in a condition to enjoy life; they eat, drink, and sleep, do their work, discharge their duties with reasonable fidelity, act with a fair amount of discretion, give way only now and then to violent and unseemly ebullitions of feeling, and, in a word, make the average men and women of society.

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* Read before the Louisville College of Physicians and Surgeons.

But of those going about our streets there are multitudes who do not rise to this average; dyspeptics, hypochondriacs, rheumatics, subjects of headache, of neuralgia, of catarrh, or of some one of the minor complaints to which the body is subject; or they are wayward, impulsive, odd, whimsical, eccentric people, of whom we are inclined to say "they are a little cracked," or "their brains are addled," or "they are crazy," or "their minds are badly balanced." The world is full of such individuals. We meet them wherever we go.

At the same time we should not affirm of such that they labor under any disease of the mind. We should not call them lunatics, certainly. No one would hesitate about their moral responsibility or their competency to manage their estates; much less would any one have them sent to a madhouse.

Captain Judson, the oldest master of the Cunard line of steamers, had a passenger who jumped overboard his ship in a fit of delirium tremens and was drowned. The captain, feeling a personal interest in the passenger on account of his connections, was at great pains to rescue his body from the water, and took it on to Liverpool. The coroner at the inquest held over it was very searching in his inquiries, and gave the captain a great deal of trouble. Among other questions he asked Captain Judson why he did not confine the passenger to his state-room, seeing he was beside himself. "If I should shut up every passenger in his state-room," replied the captain, "who seemed to me to be crazy, I should come into port every time with more than half of them locked up."

This brings me to the great practical questions in all cases of alleged mental insanity: 1. What degree of unsoundness of mind takes away personal accountability? 2. What justifies society in depriving an individual of his personal freedom by confining him in a lunatic asylum? These are questions that come up continually for adjudication; questions about which the opinions of medical men are demanded every day, and to which very conflicting answers are apt to be returned. It is most desirable that physicians should come to a more general agreement on the subject.

Insanity is a loss of volitional control over the thoughts, passions, and actions; an insubordination of some of the faculties or emotions, which leads to incoherent, inconsistent, or violent behavior. This volitional control is possessed in various degrees by different individuals, and by the same person at different times. None have it in perfection. All are liable to lose it in a degree. How great a loss of it constitutes lunacy is the question; and what degree of lunacy excuses crime is the great question in cases where insanity is the plea for its commission.

Insanity may come on suddenly on an individual in the most perfect health, as the result of violent passion, or from alcohol, from narcotic poisons, in the delirium of fever, or from epilepsy, or from injury of the brain, and may pass away as suddenly with the exciting cause; or, brought on in an instant, the injury of the brain may be lasting, and the insanity may become chronic.

Individuals subject to epilepsy frequently become crazy for a short time after a convulsion, though most of their time rational and harmless. In the fit of insanity thus induced they are not responsible for their acts; they are for the time being lunatics. So of the victim of delirium tremens. "He sees more devils than vast hell can hold," and if in his hallucination he strikes at his imaginary foe, he is not accountable. To all intents and purposes he is insane, though his insanity is of his own procuring. He has lost his volitional control and is puppet to his own delusions.

Mechanical injuries of the brain sometimes effect a complete revolution in the moral character of the individual, as alcohol is well known to do in many cases. How often do we see amiable men rendered quarrelsome and pugnacious, as most men are made loquacious and silly, by strong drink! But what is more noteworthy is that some honest men when sober become rogues when drunk. *In vino veritas*—their true character is brought out by the liquor, some may be ill-natured enough to allege. But it is not so. The propensity to steal is engendered by the action of the alcohol on their brains. And this is equally true of the homicidal propensity. But while I should be very far from excusing murder on the ground of drink, I would not punish a man for stealing goods when he was drunk.

Violent emotion is a frequent cause of insanity, which is apt to be lasting, though the cause is transient; a permanent change in brain-structure is suddenly brought about by the strong emotion. Fright has often induced raving madness in children, and sometimes in adults. The shock caused by the disaster in Massachusetts a few weeks ago made eight maniacs, the telegraph informs us, and sudden, deep distress is leading to insanity every day.

A story is somewhere told of two brothers who were engaged in a great battle, side by side. One of them was a man of great size and bodily power; the other was of a slender, delicate frame, slight almost as a girl. The enemy was defeated and fell back. The victorious army pursued, and in crossing a ditch the strong man leaped upon the body of one who had fallen into it before him. He supposed it was the body of a retreating foe, but on looking into the face of the prostrate man he found it was his brother. The feelings with which he stooped down were those of an exulting conqueror, but he rose up a shrieking maniac.

Gen. Mercer once related to me a case illustrative of the power of remorse to unsettle the mind. A young physician in Virginia took advantage of the confidence of a young lady most respectably connected and seduced her. Her brother, a young officer in the United States army, resolved to avenge her wrongs. Watching the road along which the doctor was expected to pass, he waited his appearance, and, stepping out with two pistols, offered one to the enemy of his sister's peace, telling him to defend himself. The guilty man was paralyzed with fear and refused to fight, and the young officer shot him through the breast. He felt at the moment that he was justifiable. He had shed the blood in an injured, violated sister's cause; but remorse followed the act and he became crazy, and was seen often on the same road wringing his hands and begging the passers-by to wash the blood from them.

This will recall to you the case of Lady Macbeth, whose bloody hands, it seemed to her, would "incarnadine the sea." The suddenness with which insanity comes on in such circumstances is no evidence against its reality. Nor is the mania which sometimes results from drink always transient. Persistent insanity is brought on in some persons by a debauch, and is not cured except by proper treatment—generally confinement in an asylum. In some it is of a mild form, and disappears on abstinence from the exciting cause.

Except that insanity is of the brain, and not in the mind, as was once believed, hardly any fact concerning it is more generally conceded than that the disease is hereditary. In fact it is probably the malady of all others most apt to be transmitted. It is more hereditary than gout or tuberculosis, and far more so than cancer. Nor is this the whole truth in regard to the influence of parents upon their offspring in reference to the disease. Epilepsy in the parent may become insanity in the child, or *vice versa*. There is degeneration in the nervous system, which in one child may take one form and in another another; and this degeneration increases from generation to generation. In a family, the history of which is given by Morel, the degeneration pursued the following course:

First generation—Immorality, alcoholic excess, and brutal degradation, one or the other appearing in different members of the family.

Second generation—Hereditary drunkenness, maniacal attacks, general paralysis.

Third generation — Hypochondria lypemania, homicidal tendencies.

Fourth generation—Feeble intelligence, stupidity, first attack of mania at sixteen, transition to complete idiocy, and probable extinction of the family.

Fortunately for human society, this increasing degradation leads, in a few generations, to the extinction of the afflicted family. A race of imbeciles can not perpetuate itself; and this leads me to remark how directly hygiene and physical education bear upon diseases of the mind. Hygiene, if its laws were observed, would prevent intermarriages between parties predisposed to insanity. If heeded, it would prevent those sensual indulgences which in the grandfather lead to insanity in the grandson. Much might be done—no one can say how much—toward averting mental diseases if physicians had the power to regulate the habits of the people, especially in regard to drink and marriage. Individuals by curbing unruly passions and avoiding the causes which lead to nervous degradation might accomplish much if they would exert the control.

When mania assumes a homicidal or suicidal form, the patient is never to be trusted, and the only safe place for him is an asylum. If the tendency is to suicide, he is almost sure to accomplish his purpose sooner or later. I had a patient who repeatedly attempted to destroy herself before she was sent to the asylum at Hopkinsville. She was sent there finally, but persistently refused to take either food or drink, and died of inanition.

It is a curious fact that the propensity to either homicide or suicide may be increased and even created by a suggestion. If a murder in a particular way is reported in the newspapers, we are pretty sure to hear of other murders perpetrated in the same way. If a suicide is committed by a particular mode, other suicides on the same plan will follow. There is a fashion in the thing. After Lord Castlereagh cut his carotid artery a great many Englishmen, in a few months, cut their throats. The girls in a city of France had got to destroying themselves in such numbers that the suicides were counted by the hundred a year. A stop was put to the practice at last by an order of the authorities that the person of every young woman who killed herself should be exposed to the public gaze. What the love of life and conscience could not arrest was cured by innate female modesty. It is not only imitative, but the thought of suicide may be suggested by a word. A hospital physician ordered the nurse of one of the wards to fasten the windows down securely, for there was danger that a patient subject to delirium might attempt to jump out of the house during the night. A number of patients confessed to him afterward that they were seized with an uncontrollable propensity to jump out of the window on hearing those words. A surgeon, who had been dressing the wound of a man who attempted suicide by cutting his throat, said jocularly to his servant accompanying him, "If ever you cut your throat do it more artistically. Cut lower down, and you will make a successful job of it." Before that remark the servant declared that cutting his throat had never entered his head, but he began at once on hearing it to think about it until the thought fastened itself upon his mind, and he actually at last attempted suicide by cutting his throat; but fortunately, without having profited by the instructions of his master, and doing it in a bungling manner, escaped with is life.

These are instances of monomania developed by imitation and suggestion. The point about which it is most difficult to instruct the public, and therefore jurors and judges, is this of madness on a single subject. Men are disinclined to believe that one may be rational in the general and yet insane as to a particular. They will hardly excuse a crime committed by a man who upon most subjects exhibits quite as much intellect as themselves. The criminal reports of Kentucky afford a melancholy illustration of this ignorance of our judicial tribunals in respect to monomania. Dr. Abner Baker, a graduate of the University of Louisville, of most respectable family, a refined, educated gentleman, killed his brother-in-law, Bates, for alleged criminal intimacy with his wife. He was examined by a jury and discharged on the ground of lunacy. He went to Cuba and spent the winter. On his return in the spring he was apprehended on a finding of the grand jury of Clay County and tried for murder. It appeared in evidence that his suspicions of his wife were groundless; but Baker adhered to his belief, and was violent in his accusations, fully justifying himself for the deed, which he had never attempted to conceal. He was found guilty of murder by the jury, though nine of the number subsequently united in a petition to the governor to reprieve him. He suffered the extreme penalty of the law, though most of the eminent physicians of Kentucky signed a petition for his pardon. On the scaffold and to the last Baker vociferated that he was dying for the crimes of a prostitute. Writers on juridical medicine have agreed in denouncing his execution as "judicial murder;" and yet there was much in the case to puzzle the minds of the jury. Baker committed the act deliberately, and showed ingenuity in planning it. He alleged a great wrong as his excuse for perpetrating the crime, argued ingeniously that he was justifiable, was sound in mind on all other subjects, had never exhibited signs of insanity before, and was of a family in which lunacy had never shown itself.

We have very recently had a case in this city less puzzling to the jury, but which called forth a good many contradictory opinions from our brethren. I think the verdict in the case referred to was just. The lady was not a subject for a lunatic asylum, and yet she was not of a sound mind. No woman would pursue a man winter and summer, by day and night, from city to city for years, even for the pleasure of tormenting him, if in her right mind; but it would have been unjust and cruel to shut her up in a mad-house.

It was long a popular notion that persons of genius were more liable to diseases of the mind than men of feeble intellects. Dryden declares that

> "True wit to madness nearly is allied."

Fools, it was affirmed, never went mad, on the principle, I suppose, that *ex nihilo nihil fit.* But this notion is as far as possible from the truth. Feeble-mindedness is evidence of nervous degeneration, and readily assumes the form of insanity. The dullest schoolmate I ever had became a lunatic at the age of twenty-four or twenty-five. He was remarkable in his boyhood for his stupidity. An aunt, who was much interested in him, predicted that his mind would shoot up and brighten on his attaining manhood. But so far from it, after marrying and becoming the father of several children, he exhibited such signs of madness that it was deemed necessary to send him to an asylum. After a few years' confinement he was restored to his family, but not relieved. He was harmless, but his mind lost force with years, and he became nearly idiotic before he died.

An interesting case was tried in one of the Louisville courts about twenty-four years ago, in which an attempt was made to set aside a will on the ground that the testatrix was not competent to make one. It was the case of Polly Bullitt, in which Mr. Clay appeared as counsel for the plaintiff. Mr. Guthrie was the defendant. Polly Bullitt was notoriously feeble-minded. It was shown that on one occasion, in a fit of passion, she seized a child, flung it into a spring, and would have drowned it had not bystanders interfered to save it. For the time she was evidently beside herself. Mr. Clay made this point in his argument before the jury with great effect. "If Polly Bullitt," said he, "were now before you on a trial for the murder of that child, which she had the will to commit, could you find her guilty? Could you say that she was a rational, accountable being? And if not capable of discerning between right and wrong, if not responsible in such a case as this, was she capable of making a will?" The jury was not able to agree; several were for breaking the will, and the case was compromised.

There are forms of insanity against which the will, the conscience, and reason interpose their authority with no more effect than straws oppose the current of our great river; tempests of insane fury, before which they are swept away as chaff is driven before the whirlwind. But there are milder forms against which the nobler faculties of the mind may contend to some purpose. There is in the human will an antiseptic power, which in thousands of instances is exerted with success against passion—flaws unseemly, against freaks and whims and caprices, against captiousness and blue devils, against looking at the dark side of things, against the tendency of the mind to run in ruts—to dwell steadily, obstinately on one painful subject—against riding hobbies until the mind acquires obliquity by being limited to one line of thought; and thus when there is a tendency to unsoundness the mind may often be kept sound by an effort of the will.

It is a truth well understood that in the animal body the perfection of function, the harmony of parts, the development of energy is most complete when each organ is in most perfect subordination to every other. And so in regard to our moral constitution; that is the noblest and most enviable condition of the mind in which the imagination, the passions, and the emotions are subordinated to the will, enlightened and regulated by the understanding and the conscience. This is the condition for which thoughtful men strive. The further we recede from this subordination of our faculties the lower we sink in the scale of moral being. The knowledge of the fact would be of comparatively little value to us if it were not equally well known that the shaping of the moral and intellectual characters is to a great extent in our own hands. Insanity, we conclude then, is to be classed among the preventable evils of humanity. By education, by hygienic measures, much may be done to lessen its frequency.

As to the questions referred to in the beginning of this paper, "What degree of unsoundness of mind takes away personal accountability, and what justifies society in sending one of its members to a mad-house?" they have to be decided in each case upon their own merits, and in most cases a great deal may be said on both sides of the question.

LOUISVILLE.

ANNUAL MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

The association met at Detroit on Tuesday, June 2d, at 11 o'clock A. M.

The previous evening was occupied by the Association of Medical Editors. At this meeting an admirable address on *Medical Journalism* was read by Dr. Bowling, and also a paper on *State Medical Schools* by Dr. Edgar, of St. Louis. Dr. Bowling's address, marked by suggestive thought and graceful sentences, though not illuminated by those flashes of wit which so often are manifest in his editorials, concludes with the following eloquent eulogy upon doctors:

"The medical hebdomadals and monthlies of the country are devoured by a wonderful body of men, as compared with any other class; the most industrious of men, laboring incessantly in all seasons, often hoping against hope, for what hope is there for the prosperity of one who gives all his time to the calls of other people? Said one high among them, 'I had n't time to get rich.' Look at them every where, the magnates of every neighborhood, in all the relations of life blameless. Like the sewing-woman, always at work—stitch, stitch, stitch! And their wealth buried at the fabled terminus of the rainbow! How magnificently they tower above all other men when Death, in his holiday regalia, rides upon the storm of epidemics! Each is suddenly transmuted into a Minerva, and without the luxury of tit for tat, of returning arrow for arrow, skillfully to throw from his shield those aimed at his neighbors is his delight and glory; rejoicing when the storm is spent to chalk upon the lintel of their doorways 'SAVED.' They are great men, and

> "'Great men have always spurned great recompenses.
> Epaminondas saved his Thebes and died,
> Not leaving ev'n his funeral expenses.
> Great Washington had thanks, and naught beside,
> Save the all cloudless glory, that few men's is,
> To save his country.'"

Dr. Edgar's essay was a concise and to some minds a conclusive argument against the state engaging in the business of educating doctors. The ability displayed by Dr. Edgar in this effort makes us anticipate with great pleasure the address which he will deliver as president of the Editorial Association next year.

The opening exercises of the American Medical Association consisted of prayer by Bishop McCoskry, an address of welcome by Dr. Brodie, and the address of the president, Dr. Toner.

Dr. Toner's address * was in the main eminently practical, and various recommendations in it were referred to a special committee, of which Dr. White, of Buffalo, was chairman.

* A singular typographical error occurs in the report of this address as published in one of the Detroit dailies. A portion of a sentence, which should be "Here are assembled the Nestors of the profession," was thus, "Here are assembled the meteors of the profession." Upon second thought probably there was no mistake; possibly there were professional "meteors" there!

The address had notes appended to it containing statistics, historical information, etc.; a work for which Dr. Toner has peculiar facilities and fitness, and really these notes will be by many almost as highly prized as the address itself.

In the afternoon the various sections met, and most of them got to work promptly and usefully, a large number being present and participating in the discussions. But the work there done we shall refer to after completing our review of some of the salient points in the history of the association proper.

On Thursday morning Dr. Davis, on behalf of the Judicial Council, made a report on the subject of ethics, which presented a clear exposition of various matters upon which the professional mind has been in doubt, and which thus terminated:

"After carefully reviewing the whole subject, your committee do not recommend any alteration in the present Code of Ethics. On the contrary, we desire to express the opinion that if every medical school and society would supply each graduate as he left the school and each member initiated into society with a printed copy of the code, accompanied with the injunction that it be carefully studied, it would be productive of much good, directly to the profession and indirectly to the community."

The following change in the constitution was adopted: An amendment to article 2, so as to require that delegates shall receive their appointments from state societies, county and district societies recognized by state societies, and from the army and navy of the United States.

The amendment was explained by Dr. Davis, and brief speeches were delivered by Dr. Woodward, U. S. A., and one or two others. No one opposed the practical drift of the amendment, but some suggested difficulties in their own localities, especially in the District of Columbia. Dr. S. C. Busey, of Washington, thought that the representation must be limited. He introduced a proviso that the number of delegates from any state, territory, county, city, or town shall not exceed the ratio of one in ten of the resident physicians who have signed the code of ethics of this association.

Dr. Keller presented the following preamble and resolutions, which were unanimously adopted:

> "Whereas we have learned with regret that Congress has not yet acted favorably on our memorial in behalf of the medical corps of the army; and
>
> "Whereas it is, in our opinion, just and right that the rank of the medical officers of the army should be fully equal to that of the other staff corps or the medical corps of the navy, which, we are informed, is not the case under existing laws; therefore
>
> "*Resolved*, That a committee of one person from each state and territory, with power to fill vacancies, be appointed for the purpose of memorializing Congress upon this subject, and of securing the co-operation of the several state and county medical societies for the same purpose.
>
> "*Resolved*, That Dr. J. M. Toner, of the District of Columbia. be chairman of said committee, and that the other members of the committee be appointed by the president."

At 10 A. M. Dr. Davis delivered the *Address in Practical Medicine*, etc. In it he spoke of recent investigations as to the functions of the brain and nervous system; thought that we were attributing too much to nerve influence and too little to properties inherent in living matter; believed that the pendulum of professional opinion and practice was now returning from the extreme opposite of depletion and evacuants; spoke of the undue importance attached by some to thermometric observations in disease, and hasty generalizations in pathology and etiology from microscopic examinations. He stated these to be, as he believed, the strongest barriers in the way of genuine progress both in the science and art of medicine, and said:

> "Incomplete observation of facts, deductions from inadequate premises. and the constant use of mere theoretical assumptions or suppositions as though they were demonstrated facts; it is the indulgence of these practices that actually keeps one half of the

professional observers busy in correcting the errors and disproving the assumptions of the other half, and fills our literature with endless contradictions. Almost every problem connected with medicine is complex, requiring for its proper solution a careful observation of many elements and their exact relation to each other."

The address concluded with a commendation of the recent arrangements of the sections, an urgent appeal to all the gentlemen present to connect themselves with one or another of these, and the utterance of enthusiastic hope as to the future honor and usefulness of the American Medical Association.

Following this address was the *Address in Surgery*, etc., by Prof. Gross. Before commencing its reading Dr. Gross very politely requested the ladies — many being present — to withdraw, as he would be required to use terms which he did not wish to utter to a mixed audience. The subject of his address was *Syphilis in its Relations to National Health.* This is one of the most important papers ever presented to the profession, and as it becomes more generally known will create warm discussions, especially among syphilographers, moralists, and legislators.

At the general meeting on Thursday morning the Committee on the President's Address reported as follows:

"Your committee, to whom was referred the recommendations and suggestions contained in the president's address, would respectfully report as follows:

"We are fully in accord with the president concerning the propriety and desirability of establishing at some central position a physiological and pathological laboratory.

"In view of the growing sense of the importance of carefully recorded facts and observations, we are fully impressed with the desirability of the publication of annual reports of the progress and discoveries of all chartered medical and sanitary institutions.

"We also recognize the importance of concerted action on the part of the profession, and agree with the president in urging the formation of a complete system of state and local medical societies.

"We would also recommend an extension of time of the session of one day, making the length of the session four days. This is done in view of the fact that, although the arrangement of the sections under the present circumstances is admirable, they occupy more than half of the time of the meeting, causing a lack of time for the proper and deliberate consideration of legislative matters. When, in connection with this, there is taken into consideration the fact that the over-generous hospitality of those who entertain the association is apt to occupy much time, it will be seen that the time for the discussion of the papers is inadequate.

"We also look with much favor upon the president's recommendation of the organization of an international medical congress, and would move the adoption of the following:

"*Resolved*, That in view of the lack of time in which to properly transact the business of the association, an extension of one day is deemed advisable.

"*Resolved*, That the president appoint a committee of five, of which he shall be chairman, to elaborate a plan for the organization of an international medical congress, and report at the next meeting.

"Your committee had also prepared a resolution in regard to memorializing Congress concerning the rank of the medical staff corps of the army, but find that they are anticipated by Dr. Keller. They would therefore simply recommend, on the part of the members of this association, continuous personal application to the representatives in Congress from their several districts in regard to this important subject."

Dr. White, for Dr. Gross, who had been called home by the illness of his wife, presented appropriate resolutions as to the death of Dr. Henry Miller, and Dr. Keller with reference to a monument to Dr. Ephraim McDowell.

Dr. Wilson, of Michigan, offered the following preamble and resolutions:

"Whereas Dr. Bartholow, of Cincinnati, Ohio, in his zeal for scientific research, has recently made a series of experiments with electricity upon the brain of a patient, by inserting needles into the substance thereof, and passing currents from these to different parts of the body, causing thereby pain, convulsions, and probably hastening death; and

"Whereas we are ever ready and willing to accord the greatest praise and honor to the original investigator in any part of the domain of medicine; yet these experiments are so in conflict with the spirit of the profession and opposed to our feelings of humanity that we can not allow them to pass unnoticed.

"*Resolved*, That, in our opinion, no member of the medical profession is justified in experimenting upon his patient, except for the purpose and with the hope of saving said patient's life or the life of a child *in utero*."

The resolution was referred to the Judicial Council without debate.

At 10 A. M. the *Address in Obstetrics* was given by Dr. Parvin. Its subject was *uterine hemorrhage*, with reference more especially to its *etiology* and *therapeutics*. In connection with the latter hypodermic ergot, intra-uterine astringent injections, and transfusion were considered.

Following this was the *Address in State Medicine*, etc., by Dr. A. N. Bell, of Brooklyn, the well-known editor of the Sanitarian.

On Friday morning the Committee on Nominations reported five hundred dollars appropriated to the secretary; a committee was appointed to prepare a suitable notice of Dr. Mendenhall's death immediately after the receipt of a telegram from Cincinnati informing the association of this sad event; and the usual vote of thanks given.

Dr. Talley, president of the Section of Medical Jurisprudence, upon stating that ill health prevented his delivering his address, was authorized to complete it and have it published in the Transactions.

Some impromptu rhetoric from Drs. Hall and Richardson, Canadian members, which was eloquently responded to by Dr. Davis; an announcement from Dr. Brodie that, including the members from Canada, there were four hundred and twenty-seven enrolled; and with a neat speech from President Toner, the association adjourned to meet in Louisville on the first Tuesday in May, 1875.

We can not terminate this brief account without strongly commending Dr. Brodie and his associates for the faithfulness and success with which they discharged their duties as Committee of Arrangements, and without expressing our high appreciation of the generous hospitality of the prominent citizens of Detroit.

The following is a list of officers and committees for 1875:

President—Dr. W. K. Bowling, of Tennessee; *First Vice-president*—Dr. Wm. Brodie, of Michigan; *Second Vice-president*—Dr. J. J. Woodward, of United States army; *Third Vice-president*—Dr. H. W. Brown, of Texas; *Fourth Vice-president*—Dr. H. D. Didama, of New York; *Treasurer*—Dr. Casper Wister, of Pennsylvania; *Assistant Secretary*—Dr. Will. Walling, of Kentucky; *Librarian*—Dr. William Lee, of the District of Columbia.

Committee on Library—Dr. Johnson Elliott, of the District of Columbia.

Committee of Arrangements—Dr. Edward Richardson, Chairman; Drs. Lawrence Smith, Robert Gale, James Holland, Henry Bullitt, J. M. Keller, D. W. Yandell, Lewis Rogers, R. C. Hewitt, all of Louisville.

Committee on Prize Essays—Drs. J. A. Octerlony, L. P. Yandell, J. D. Jackson, all of Kentucky; Theophilus Parvin, T. M. Stevens, both of Indiana.

Committee of Publication—Drs. F. G. Smith, Wm. B. Atkinson, D. Murray Cheston, Casper Wister, Alfred Stillé, all of Pennsylvania; William Lee, of the District of Columbia; H. F. Askew, of Delaware.

First Section—Practice of Medicine, Materia Medica, and Physiology: Dr. Austin Flint, of New York, Chairman, and Dr. J. K. Bartlett of Wisconsin, Secretary.

Second Section—Obstetrics and Diseases of Women and Children: Dr. W. H. Byford, of Illinois, Chairman, and Dr. S. C. Busey, of District of Columbia, Secretary.

Third Section—Surgery and Anatomy: Dr. E. M. Moore, of Rochester, N. Y., Chairman, and Dr. T. S. Latimer, of Maryland, Secretary.

Fourth Section—Medical Jurisprudence, Chemistry, and Psychology: Dr. Jerome Cochran, of Alabama, Chairman, and Dr. G. A. Moses, of Missouri, Secretary.

Fifth Section—State Medicine and Public Hygiene: Dr. H. I. Bowditch, of Massachusetts, Chairman, and Dr. H. M. Baker, of Michigan, Secretary.

WORK IN THE SECTIONS.

Section I. Practice of Medicine, Materia Medica, and Physiology.—Dr. Bulkley, of New York, read a paper on the treatment of eczema; Dr. Farnsworth, of Iowa, on the therapeutic uses of ammonia. A paper, by Dr. E. A. Hildreth, on the medical botany of Western Virginia, was referred to the Committee on Publication without reading, as its author was absent. The Committee on the Cultivation of the Cinchona-tree was continued. A paper on the mechanism of the encephalic circulation, by Dr. R. A. Vance, of New York, was presented. Dr. Buckham, of Michigan, read one on uræmia. Dr. Bulkley, in a paper entitled "A New Remedy for Pruritis," advised an ointment composed of one ounce of ointment of rosewater and a drachm each of powdered camphor and of chloral. The address of the president of the section was discussed. Dr. Garrish, of New York, read a paper on hydrophobia; Dr. Gray, of Illinois, on physiology in relation to practice. A paper on electricity as a restorative agent in asphyxia and in narcosis was referred to a special committee; and Dr. Sequin gave an explanation of his system of thermometry.

Section II. Obstetrics and Diseases of Women and Children. Dr. Beck, of Indiana, presented a paper upon the mode in which spermatozoa enter the uterus. Dr. Scott, of Woodstock, Canada, presented, through Dr. Marion Sims, a new pessary, a modification of Cutter's, in which the various parts are made flexible; and an interesting discussion, in which Drs. Sims, Byford, White, Pallen, Minor, and Scott participated, ensued. Dr. Bonteme, of New York, read an interesting report of a case of reduction of an inverted uterus without manipulation. Dr. Parvin presented some instruments for the removal of intra-uterine polypi, and also Aveling's apparatus for transfusion, and Leiter's; and the subject of transfusion was discussed by Drs. White, Octerlony, Forbes, and others. Dr. Sims made some very interesting remarks upon ovariotomy, considering at some length the causes of death, and urged the use of a drainage-tube passing in at the lower portion of the abdominal wound; recalling what he had previously published as to having the tube pass through Douglass's cul-de-sac, and securing the pedicle by means of steel wire twisted on either side, he believing it better than the clamp, better than silk ligature, or silver sutures. Dr. Dunlap, of Ohio, also spoke at some length on the subject of ovariotomy, giving the results of his large experience, and indicating his decided preference for treating the pedicle by ligation, returning it to the abdominal cavity, and leaving one end of the ligature to be external. This secured drainage; it was simple, easy of application, and certain in the prevention of hemorrhage. Several special committees were appointed to report on subjects included in the departments of this section at the next meeting of the association.

Section III. Surgery and Anatomy.—Dr. Dunlap, of Ohio, reported an operation for *enchondroma over the sternum.* Dr. Moore, of Rochester, N. Y., read an able paper upon *epiphyseal fracture of the superior extremity of the humerus*, and Dr. Sayre one upon fractures; the latter eliciting a very animated discussion, especially with reference to the non-shortening in fractures of the thigh, a discussion in which Drs. Hodgen and Gregory, of St. Louis, Sayre, Gross, Garcelon, Quimby, Hughes, and others participated. The remarkable results reported by Dr. Sayre led to the adoption of the following resolutions offered by Dr. Hughes:

> "Whereas the members of the surgical section of the American Medical Association have listened with interest to the report of Prof. Sayre, of New York, on the subject of fractures; and whereas statistics accompanying said report evince in the institution represented (Bellevue Hospital) unusual results; therefore

"*Resolved*, That this section, after free discussion of the report and its reference to the publishing committee, would express their opinion, based upon experience, that the results in relation to shortening following fractures is better than can be looked for in general practice."

And also to the adoption of the following, offered by Dr. Pierce, of Illinois:

"That Dr. Sayre be requested to make a second examination. as far as possible, of all the cases reported by him one year after they have been discharged from the hospital as cured of fractures, and report the result to this association next year."

Dr. Beard, of New York, delivered a very interesting address upon some of the therapeutic applications of electricity, and the following were his conclusions:

"1. That certain benign tumors—as goitres, enlarged glands, and cysts—can be made to diminish or disappear under electrolysis.

"2. That fatty tumors and enlarged lymphatic glands are usually very difficult to diminish by electrolysis, and sometimes they will not diminish at all.

"3. That malignant tumors will not usually diminish, and rarely, if ever, entirely disappear under the electrolysis, but the pains connected with them can be treated most successfully by electrolysis.

"4. That malignant tumors, when sufficiently accessible and not too far advanced, may be treated by electrolyzing the base or 'working up the base,' as it is termed; and this method promises more permanent cures than have been obtained by the usual treatment.

"5. That certain diseases of the skin—herpes, eczema, and prurigo—may be treated by different methods of using electricity with the highest success.

"6. That diseases of the skin may be treated by local and central methods of using electricity; but some of the most brilliant results in the treatment of chronic eczema have been obtained by galvanizing the nerve-centers, in the method of central galvanization, without making any application to the diseased parts. The results of this method of treatment seem to show pretty conclusively that chronic eczema is to a considerable extent dependent on the central nervous system."

Dr. Gross's address was discussed by Drs. Sayre, Gunn, Moore, and others. In the association a committee consisting of Drs. Gross, Davis, Toner, Sims, and Morris was appointed to report at the next annual meeting upon the suggestions contained in the address.

Section IV. Medical Jurisprudence.—Dr. Talley, of Columbia, S. C., president of this section, read a brief paper on the relation of psychology to medicine; and Dr. Howard, of Baltimore, presented an able essay upon emotional insanity, the conclusion of which was as follows:

> "We find then that there are certain cases in which the fear of punishment acts upon the minds of persons unquestionably insane with a wholesome and restraining influence, and it seems right and proper that the community should receive the protection which can be given it by the enforcement of the laws in this regard. If it be made certain that punishment will always follow swiftly upon the steps of those who do injury to the persons or property of others, many having the insane temperament will be controlled, and have their powers of resistance to insane promptings strengthened, who might with a less certain prospect of punishment before them give way to their evil impulses."

Section V. Public Hygiene.—A report from Dr. Bowditch, of Massachusetts, on a national sanitary bureau, was read, the author taking the ground that the time was not yet come for the establishment of such a bureau, an opinion which was subsequently reflected by the section after an animated discussion, in which Dr. Cochrane, of Alabama, Dr. Kedzie, of Michigan, Dr. Stuart, of Minnesota, Dr. Brown, of Texas, Dr. Westmoreland, of Georgia, Drs. Bell and Thoms, of New York, among others, participated, in the adoption of the following resolution, offered by Dr. H. A. Johnson, of Chicago:

> "*Resolved*, That with a view to the establishment of a national sanitary bureau it is expedient at the present time to press, through state medical societies and physicians every where, upon the legislatures of the several states the importance of establishing state boards of health."

Dr. Kedzie read a paper upon the effects of drainage in Michigan upon health, and Dr. Bell one upon drainage in New York. A similar report relating to Virginia, by Dr. Cabell, was presented; also one from Dr. Stuart relating to Minnesota; while Dr. Johnson, of Chicago, reported verbally as to the drainage in Chicago and the surrounding country.

Drs. Kedzie, Stuart, and O'Sullivan were appointed a committee, to report at the next meeting of the association, on ventilation of dwellings, school-houses, and other public buildings; Drs. Baker, Johnson, and Toner a committee to prepare a bill to establish a department of public health at Washington; Drs. Pratt, Armor, and D. W. Yandell as to state boards to examine those desiring to practice medicine or surgery.

The following resolutions, offered by Dr. Fred. Horner, jr., were, after considerable discussion, adopted:

"*Resolved*, That in view of the alarming prevalence and ill effect of intemperance, with which none are so familiar as members of the medical profession, and which have called forth from eminent English physicians the voice of warning to the people of Great Britain concerning the use of alcoholic beverages, we, as members of the medical profession of the United States, unite in the declaration that we believe that alcohol should be classed with other powerful drugs; that when prescribed medically it should be done with conscientious caution and a sense of great responsibility.

"*Resolved*, That we are of the opinion that the use of alcoholic liquors as a beverage is productive of a large amount of physical and mental disease; that it entails diseased appetites and enfeebled constitutions upon offspring, and that it is the cause of a large percentage of the crime and pauperism of our large cities and country.

"*Resolved*, That we would welcome any change in public sentiment that would confine the use of intoxicating liquors to the use of science, art, and medicine." T. P.

REMARKS ON HAY FEVER, WITH CASES.

BY RICHARD C. BRANDEIS, M. D.

A few words as to the nature and treatment of hay fever—or, as it is technically termed, *catarrhus æstivus*—may not be amiss, as the season during which it prevails is now near at hand. I feel encouraged to record my experience with this affection, as I have had the good fortune to afford more or less relief in a number of cases.

This disease generally makes its appearance about the time of the hay-harvest, and has been attributed to the irritating influence of the pollen of various grasses on the mucous membrane lining the larynx, the pharynx, and the nasal cavities. Others deny the specific action of the ripening grasses, but think that the disease is due to a peculiar idiosyncrasy which manifests itself when the patient is exposed to any exciting cause, such as the odor of certain flowers, smoke, and dust of various kinds.

The symptoms of this disease generally make their appearance about midsummer, and last for a variable length of time, though generally cut short by the first cool weather. In some cases, however, they last until winter. Their intensity is generally increased by heat and sunshine, if the patient exposes himself to their influence. The agony of the sufferer is sometimes intense, and consists in almost incessant coughing and sneezing, accompanied by an acrid, irritating discharge from the nostrils, which is apt to excoriate the surface over which it may pass. The suffusion of the eyes due to the general irritation is also a marked symptom, and is often a source of great complaint.

CASE I. In August, 1872, I was consulted by Mr. W., a gentleman, aged sixty-one, who had a very severe catarrhal inflammation of the mucous lining of the nasal cavity and pharynx, accompanied by a thin watery discharge, quite acrid and irritating, and causing continual coughing and sneezing. He told me that he had been similarly affected during every summer for the last eleven years, the attack setting in regularly between the 18th and 25th of July, and lasting until the first frost; *i. e.*, sometimes as long as the middle of November. After this history I concluded that I had a case of hay fever before me, and knowing the intractable nature of the disease I hesitated for some days before beginning treatment. While thinking over the case I remembered that Prof. Helmholtz, of Berlin, had suffered similarly, and obtained marked relief from the local use of quinine.

On August 18th I made the first application to the nasal cavity, injecting half an ounce of a solution of muriate of quinia by means of Schuistzler's spray apparatus. The patient experienced almost immediate relief, and I felt encouraged to proceed with this mode of treatment. Daily applications were made, the pharynx also being treated. Mr. W. was discharged on September 1st, and suffered not the slightest inconvenience until the following August, when he again came to me. I then made use of a solution of quinia and the hyposulphite of soda, which was applied to all the affected parts. The relief was even more marked than during the first trial, and since then the patient has been remarkably free from catarrhal affections.

Case II. Mr. P., aged forty-one, came to me late in the summer of 1872 with the statement that for seven years he had suffered during almost the entire summer from hay fever, which caused so much suffering that he was unable to attend to his business affairs. On examination I found intense engorgement of the larynx, pharynx, and nasal cavity, as well as great congestion of the ocular conjunctivæ. I made daily applications of the solution of quinine and hyposulphite of soda, which produced a cure after ten days. Although nearly two years have elapsed since that time, I have recently been told that Mr. P. had not suffered in the least since I had him under treatment.

CASE III. Miss D. had been a victim of this disease for twenty-two years, during which time she had tried every proposed means of relief without obtaining the slightest benefit therefrom. Meantime she had spent two summers in Europe; and, though exposed to the very same influences as at home, only then have her sufferings been at all bearable. The peculiarity of this case is that the disease always lasted until midwinter, and sometimes as long as the following spring.

This patient consulted me in August last, and I felt disinclined to undertake a cure in view of the many fruitless attempts previously made. The patient told me that she had barely slept at all for over ten days, owing to the intense dyspnœa and incessant coughing. Her appetite was also gone, in consequence of which she had grown very feeble.

On August 28th I made the first application of an eight-grain solution of quinine to the affected organs, and prescribed a pill of quinine, muriate of ammonia, and extract of belladonna, to be taken three times daily. I saw the patient twenty-four hours after, and learned that she had rested comfortably during the previous night, and had relished her meals more than usual. I continued my applications on alternate days, and after three weeks Miss D. had recovered sufficiently to take a pleasure-trip to New York, since which time she has been comparatively free from all indisposition.

CASE IV. A gentleman, aged twenty-three, had suffered for two summers. I used the ordinary steam atomizer in his case, and afforded him relief in three sittings.

The success of the above mode of treatment has inclined me to the belief, first advanced by Prof. Helmholtz, that this affection is caused by certain vibrio-like bodies, which attach themselves to the mucous membranes, and by their irritating influence give rise to all the unpleasant symptoms.

LOUISVILLE.

ON ELECTRICITY IN CHOLERA INFANTUM.

BY JOHN O'REILLY, M. D.

I have within the last few weeks derived so much advantage from the use of electricity in cholera infantum that I feel that I owe it to the profession to communicate the results of my experience with the remedy. Heretofore electricity has been regarded as an agent particularly adapted to the relief of chronic affections, and its use has been further restricted by the trouble attending its application. From the few trials I have had an opportunity of making with it in the summer complaint of children, I am persuaded it has great efficacy in allaying the gastric irritation which often forms one of the most serious symptoms in that disease. And as to the objection that its use is troublesome, that has been obviated by the ingenuity of instrument-makers, who have devised a battery that may be carried about by a physician in his coat-pocket.

The instrument that I use is one made by A. Gaiffe, of Paris, which is six inches long, three inches wide, and one inch in thickness. This small instrument contains not only the battery but also the implements used in applying the electricity.

The method I have used in applying the remedy is as follows. I apply the positive pole of the battery to the upper portion of the sympathetic and pneumogastric nerves in the auriculo-maxillary fossa, and then apply Duchenne's wire-brush or negative pole to the region of the stomach, liver, and small intestines until the skin is quite red. The operation does not occupy more than five minutes. The effect I have derived from these applications is instantaneous and very satisfactory. The vomiting is usually arrested by one application, and very little other medication is needed. The recovery appears to be sudden and complete. The battery also appears to have an anodyne effect, for the children generally take a nap after its employment when opiates had failed to quiet them. The following are a few of the cases in which I have used it.

CASE I. June 20th—Found the child of J. M. very restless, crying, tossing its arms and head, purging and vomiting every half hour; discharges large and watery. As I entered the room the child had just finished nursing. Before I was hardly seated it discharged by one effort the whole contents of the stomach. It had passed the whole night previous in this condition. The mother had lost all her children in their second summer. I applied the interrupted current immediately over the regions above mentioned. I likewise ordered hydrarg. submur. gr. j, pulv. Doverii gr. j, to be given in an hour after I left, and the child in the mean time to have nothing but pounded ice. I visited it again at 6 P. M. the same day. The mother informed me that it had had three operations since my morning visit, and had vomited three times. It had not vomited, however, for four hours after the application of the electrical current, and had drunk water several times. I made another application as in the forenoon, but gave no medicine.

June 21st—The child was sleeping quietly; had had but one operation since previous evening, and had not vomited after the last faradization; slept all night, only waking twice to take the breast.

CASE II. Called, June 21st, to child of B. C., which had had frequent large watery discharges during the night, and could retain nothing on its stomach; intense thirst and fever. Gave hydrarg. submur. gr. j, pulv. Doverii gr. j; ordered all nourishment stopped, and to get ice-water or pounded ice. Saw him again in the evening at 6 P. M.; bowels not moving nearly so often, but vomiting as bad as ever. I now applied the interrupted current.

June 22d—Visited the child at 9 A. M. Has not vomited since I used the electricity. Has taken milk and water this morning without even nausea.

CASE III. Visited child of N. A., June 21st, at 8 A. M. Had been purging all night, and this morning commenced vomiting. The stomach was not so irritable as in either of the other cases; discharges were sometimes watery, sometimes greenish, with curdled milk and mucus. Ordered hydrarg. submur. gr. ij, pulv. Doverii gr. ij, two powders, one to be taken immediately, the other at bed-time. I also gave acetate of lead.

Visited the child again, June 22d, at 9 A. M. Symptoms scarcely changed; vomiting the same; purging not so bad; will not touch the breast. I applied the electricity over all the regions specified until the surface was perfectly red, and ordered treatment continued.

Visited patient again June 23d. After the application of the faradic current on day previous the vomiting had ceased entirely, and the child had slept some hours. This case received no further treatment.

In the first case I resorted to electricity at once, because from the violence of the attack there was danger that the child would sink under it. In the second and third cases I delayed its application to see if the vomiting would yield readily to other remedies. The experiment proved the importance of faradization, for when introduced the symptoms yielded to remedies that had formerly proved inert. Now that we are supplied with such complete electrical appliances in so compact a form, there is no reason why this remedy should not come into more general use. I hope it will be tried in the vomiting of children laboring under cholera infantum.

LOUISVILLE.

COMPOUND FRACTURE OF FIBULA.

BY GEORGE N. MONETTE, M. D.,
Visiting Physician to the Charity Hospital, New Orleans.

R., twenty-two years old, was injured by a car, suffering a compound fracture of the left fibula, with a lacerated wound of the external belly of the gastrocnemius near the popliteal space. The edges of the wound were first approximated, but extensive sloughing and suppuration required them to be left open. The parents of the young man, in their anxiety to subdue the severe inflammation, transcended the attending physician's direction in the use of ice, and packed the limb in it, absolutely freezing it.

On the third day I was called to see the case, and found the patient with symptoms of gangrene, the wound sloughing, inability to take nourishment, restless, and sometimes delirious. There was great coldness of the limb, and all attempts to re-establish the circulation and restore normal temperature were ineffectual. I injected the wound with a solution of carbolic acid, directed one fourth of a grain of morphia every hour until relieved, and stimulants and nutritious food. Temporary improvement ensued. Was sent for early next morning, and found the limb gangrenous. The inflammatory line of demarkation was three inches above the knee. Amputation by the circular method at the lower middle third of the thigh was performed; but little hemorrhage; re-action took place well. Scruple doses of chloral were given to palliate pain and produce sleep, with desired results. Tetanic symptoms appeared in three days, and continued unabated until death, which occurred five days after the operation, ten days after the injury. Pyæmic symptoms were present, as the convulsions were of a modified tetanic character.

NEW ORLEANS.

Reviews.

A Treatise on Therapeutics, comprising Materia Medica and Toxicology. By H. C. Wood, jr., M. D., Professor of Botany and Clinical Lecturer on Diseases of the Nervous System in the University of Pennsylvania, etc., etc. Philadelphia: J. B. Lippincott & Co. 1874.

This work considers especially the application of the physiological action of drugs to clinical medicine. Its aim is to place materia medica upon a basis more scientific than that with which the profession has heretofore rested satisfied. The conception has something captivating in it, and every attempt thus to remove therapeutics from the field of empiricism deserves encouragement and applause. We want a better method than the well-tried one of clinical experience, which, however much it has done for our art, labors under this serious drawback, that its results lack certainty. What seems to be established one day is too often cast aside as a fallacy the next; and so it must be while remedies rest upon their present foundation.

We read, some years ago, with great interest, the work of Dr. Wood on sun-stroke, and from his manner of handling that subject we took up the volume before us with high expectations. It was written because the author felt that there was a need for "a book into which should be gathered the many scattered facts in regard to the physiological action of medicine; a book in which an attempt should be made to sift the true from the false, to reconcile seeming differences, to point out what we know and what we do not know, and to give a platform from which investigators might start forward without the necessity of being, as is so often the case, ignorant of what was already achieved, or of spending a great deal of time in a wild hunt through the almost boundless but often scattered and inaccessible ranges of continental literature;" and in writing it we express a confident belief that he has conferred a substantial favor upon the profession.

The plan of the work is to make the physiological action of remedies the principal point in discussion; but then, as we are unable yet to point out to what morbid processes such action gives relief, the clinical method has been resorted to as a necessity to supplement the scientific plan. And so a treatise on materia medica has been produced which looks to the completion of a method which shall be scientific—a method the perfection of which may be very distant still, but for the accomplishment of which we must as a profession never cease to strive. Toxicology forms a natural appendage to such a work, since it was necessary to study the action of poisonous drugs upon man in order to make out their physiological action.

It is difficult to be original in a work on materia medica and toxicology, but there is in the cast and matter of this volume an air of originality which is very pleasing; but its greatest value consists in its research and the accuracy of its statements, and these qualities, we are persuaded, will soon render it a general favorite with the profession.

A Manual of Toxicology. By John J. Reese, M. D., Professor of Medical Jurisprudence and Toxicology in the University of Pennsylvania, etc. Philadelphia: J. B. Lippincott & Co. 1874.

The author of this work conjectures that some readers will ask why another treatise is added to the already numerous volumes on toxicology. The field upon which he has entered, he admits, has been very thoroughly explored by others, and yet he hopes that his manual will be found useful on account of the simplicity of its style and phraseology. We believe it will. Without any pretensions to originality, he has embodied in it the learning and experience of toxicologists in a form that will prove eminently useful. If it should have the effect of fixing the attention of practitioners more decidedly upon the medical jurisprudence of poisons, it will render a great service to the profession. The subject is one of great inherent interest, and we hardly know a book which a physician could take up with a better prospect of entertainment than one treating of poisons. But, apart from this, the prospect of being called upon at any time to testify in cases of suspected poisoning ought to incite every physician to the study of toxicology. Dr. Reese has increased the attractions to the study, at the same time that he has improved the facilities for it, in the manual which the publishers have issued in a neat and tasteful dress.

A Universal Formulary. By R. EGGLISFIELD GRIFFITH, M. D. Philadelphia: Henry C. Lea. 1874.

This work has reached the third edition, and the editor, John M. Maisch, Ph. D., has in the formulary alone added three hundred pages to its contents. A more complete formulary than it is in its present form the pharmacist or physician could hardly desire. To the first some such work is indispensable, and it is hardly less essential to the practitioner who compounds his own medicines. Much of what is contained in the introduction ought to be committed to memory by every student of medicine. As a help to physicians it will be found invaluable, and doubtless will make its way into most libraries not already supplied with a standard work of the kind. It would be well indeed if nurses and patients knew all that is written under the head of management of the sick-room; for then not only would the comfort of the sick be greatly increased, but the success of our remedies. Temperature, cleanliness, quiet; how much these have to do in meliorating the condition of invalids none know so well as the experienced physician, except those who have suffered themselves in the sick-room.

Griffith's formulary is a book which the practitioner may purchase with the utmost confidence that he is getting a work of the highest character.

A Treatise on Pharmacy. By Edward Parrish, late Professor of Theory and Practice of Pharmacy in the Philadelphia College of Pharmacy, etc. Philadelphia: Henry C. Lea. 1874.

We have here an encyclopedia of pharmacy, of equal value as a text-book for the student and as a guide for the pharmacist and physician, which has reached its fourth edition. A work which has gained such a hold upon the confidence of the profession stands in no need of the recommendation of the press. But the changes made in it by its editor, Mr. Thos. S. Wiegand, in conformity with the views of the author expressed before his death, have decidedly enhanced its value, and we take pleasure in calling attention to it in its present arrangement. The lamented author was stricken down while zealously engaged as a peace commissioner to the Indians, a circumstance which gives a mournful interest to this edition of his popular treatise.

We have called the treatise an encyclopedia as the name most descriptive of its character—a work in which may be found all that the pharmacist or student of medicine need to know of pharmacy. On whatever point of pharmacy he may be seeking information, he will be fully instructed in this hand-book, which is heartily recommended as fully up to the times. And we take pleasure in adding that its mechanical execution is equal to the high scientific merits of the work.

Observations on Cholera. By JOHN MURRAY, M. D., Inspector-General of Hospitals, late of Bengal. New York: Putnam's Sons. 1874.

The author of this little work speaks with authority of the pathology and treatment of cholera, which he has encountered in its own native jungles; and yet it can not be expected that by any utterances of his he will bring the minds of medical men to an agreement touching many points connected with the disease. Nay, we can not see that he has settled a single one of the many questions that have been discussed for nearly half a century in regard to its origin, its pathology, or its treatment.

The only rational system of treatment lately proposed, as it strikes Dr. Murray, is to eliminate the poison of cholera by means of purgatives; but to this mode there is, he thinks, the formidable objection that increased action of the bowels is likely to become uncontrollable and to end in collapse. And as to saline cathartics and the whole class of hydragogue purgatives, this seems to us a serious objection; but to calomel the objection does not apply. Calomel generally checks watery purging and brings away consistent evacuations. It may be given without any fear of its increasing serous discharges in the worst cases of cholera. Its action, if any, is to arrest them. But we are giving our own and not our author's views on the subject.

In cholera Dr. Murray has remarked that most cases are characterized by a stage of *malaise*, and in this stage he considers quinine useful, as tending to improve digestion. For the stage of diarrhea he recommends a pill composed of one part opium, two parts black pepper, and three parts asafetida, divided into five-grain pills, to be given after every second stool. Calomel and opium, he says, were used in India with advantage. The objection to opium alone or in combination with alcohol is that it tends to suppress the secretions of the stomach, kidneys, and liver, the re-establishment of which is essential to recovery. He regards astringents—acetate of lead, gallic acid, sulphate of iron, etc.—as useless if not injurious. Three grains of calomel with one grain of opium, followed in six hours by a table-spoonful of castor-oil, he has found useful in restoring the secretions. Quinine in small doses restores appetite and guards against a recurrence of the symptoms. In the stage of collapse he allows ice-water, gives quinine, camphor, ammonia, red pepper, and above all calomel in small doses. The chief reliance, however, is upon the *vis medicatrix*, and all these remedies are simply auxiliary to nature. The expectant treatment is better than strong remedies in this stage of the disease.

This little treatise, which is eminently practical, abounds in details which have great interest for the practitioner; and to all who live in regions where cholera has prevailed, and is therefore likely, sooner or later, to appear again, it is recommended as of unquestioned authority.

The Chicago Journal of Nervous and Mental Disease.

Edited by J. S. Jewell, M. D., and H. M. Bannister, M. D.

This journal is edited by J. S. Jewell, M. D., Professor of Nervous and Mental Diseases in the Chicago Medical College, assisted by H. M. Bannister, M. D., and is to be issued quarterly. The numbers published give evidence of great ability, and we sincerely hope that the proprietors may be encouraged in their work. Nothing connected with medicine possesses greater interest than affections of the nervous system, including those termed mental, and it appears to us that the time has arrived when a journal devoted to those subjects will be supported. The profession could hardly ask a better exposition of nervous troubles than the journal before us promises to afford.

The Psychology of Skepticism and Phenomenalism. By JAMES ANDREWS. Glasgow: James Maclehose. 1874.

We have not for a long time met with a work more eminently metaphysical than the one before us. It is worthy of the analytical mind of Mr. Herbert Spencer or of Sir Wm. Hamilton. The author's mind has been trained in that severe school which has developed in Scotland some of the profoundest metaphysicians of our age. But it is a work of which we can give our readers no satisfactory analysis. The argument is condensed to a degree that renders further condensation impossible. The thoughts could not be clearly expressed in fewer words than have been employed by the author to express his meaning. Premising that Mr. Andrews uses the word "phenomenon" not in the usual sense, but as signifying "that which appears to be, but is not what it appears," we make a single extract from his essay as an example of its philosophy and of the style in which it is presented:

"It is self-evident that if we were, in the strict sense of the word, conscious of all our knowledge, no delusion—phenomenon—could possibly arise; and it is equally clear that if all our knowledge were unconscious, the result would be the same. The latter is no fanciful state. It is the normal condition of all animals without a cerebrum, whether normally, as in many, if not all, of the invertebrate, or pathologically. They differentiate nothing consciously; they move, but know not where, or why, or when; they see, but they know not color as distinguished from sound, which they hear equally unconsciously. They know not their ego as such; they have senses and perceive, but they know not any thing as such; they know neither self nor not self as such; they can not become mad or deluded, for they have never made any distinction as such. Even in man this is the case where absence of the cerebrum occurs or where it is functionless. Anencephalous specimens of humanity, if allowed to live, would be guileless men and perfectly free from error; they would neither hope nor fear, have expectations nor disappointments. The same psychological state ensues when the cerebrum is functionless, whether congenital or acquired. When congenital, and the cerebrum, though present, does not act at all, we have perfect idiocy."

To a certain class of minds the line of thought in this essay is intensely interesting, but it is one from which most readers will turn away as requiring too much thought.

Archives of Electrology and Neurology. Edited by Geo. M. Beard, M. D.

Dr. George M. Beard, of New York, has issued the first number of a journal with the above title, which is to be devoted to a limited department of medicine. It speaks well for the profession that there are readers enough interested in these subjects to sustain a journal. We hope this will be the fortune of the admirable work here projected by Dr. Beard. Of course the large number of prctitioners who are making a specialty of electrology and neurology will subscribe for his journal; but the subscribers ought not by any means to be limited to these specialists. Every physician will find it instructive and valuable.

Clinic of the Month.

THE TREATMENT OF TYPHOID FEVER.—Dr. T. B. Peacock, senior physician to St. Thomas's Hospital, in a clinical lecture on this important and often-discussed subject, spoke (London Lancet), in his usual practical way, as follows:

"I have a few remarks to make in reference to the treatment of cases of fever. We are all agreed as to the importance of carefully regulating the diet of a patient in the active stages of the disease, and of rigidly enforcing his being kept in bed; but I doubt whether, in typhoid more especially, the importance of continuing the same precautions sufficiently long during convalescence is generally realized. The frequency with which relapses occur in typhoid is a peculiar feature of the disease, and probably they can not be entirely prevented; but I believe they generally result from the patient being allowed to indulge his appetite too freely, or to leave the bed too soon; and I think that the very small proportion of relapses that have recently occurred in my cases — only two in sixty-five—has been mainly due to the unceasing care which I have taken to prevent either of these mistakes being committed. Probably the cessation of the symptoms of active fever indicates the period at which the mischief in the alimentary canal ceases to progress, but after this the ulcers take a long time to heal. I have known a patient to die on the eightieth day, and the ulcers to be still not entirely healed. During the time that there are any remains of ulceration it is most important that the bowel should be kept as quiet as possible, and the patient be persistently fed on the lightest and most easily assimilable food, so that no accumulation may take place. For the same reason the food should be given only in small quantities and at regular intervals. These rules I steadily enforce, however long may be the duration of the attack, while the tongue still continues furred, and there is diarrhea or tenderness or inflation of the abdomen; and I confine the patient to bed, or at least to the recumbent position, till he has recovered considerable strength. I have known a patient die of perforation when he had apparently so completely recovered as to be allowed to leave the hospital, the untoward event having been caused by his indulging too freely in food perhaps not of a digestible character. It is also of great importance to avoid exposure to cold during convalescence; for patients in the weekly state, which after severe typhoid is so very persistent, are very susceptible to cold, and readily suffer from bronchitis or pneumonia. All excitement of mind should also be avoided. I have known a patient from neglect of proper care in this respect to suffer from acute and fatal cerebral inflammation when he seemed to have almost completely recovered.

"There is some difference of opinion among practical men as to whether it is better at once to restrain the diarrhea in typhoid or to leave it alone unless very severe. In the early stages of typhoid there is usually diarrhea. As the case progresses the stools generally become less frequent and more consistent; and toward the end of the attack the bowels are usually confined, and sometimes very obstinately so. This would appear to indicate that the right line of practice is to leave the case alone, unless the diarrhea be so severe as to imperil the safety of the patient, in which case it should, if possible, be checked. I however, while refraining from giving astringents in cases of ordinary typhoid, regard the frequency of the evacuations as in part indicating the amount of stimulus and support which should be given to the patient, and I believe that this rule will generally be found to answer.

"When in case of typhoid the bowels become confined, much caution is required in the exhibition of aperients. Enemata are always safe, and generally will procure sufficient relief; but sometimes, and especially when the patient is taking a fair amount of food, more free evacuation may seem to be required; and yet the mildest aperients may bring back the diarrhea and cause a relapse. The rule which I generally follow is not to interfere so long as the patient is apparently not suffering from the bowels not being acted upon, and this even though several days should elapse; but if the patient complains much of sense of fullness, or experiences uneasiness or pain, and especially if the abdomen becomes tumid and tender, the bowels must be relieved. Under the circumstances I generally order a dose of calomel and opium, one or two grains of the former to two of the latter, and follow this by a small dose of castor-oil and by an enema if necessary; and the effect of one or two doses of this kind is almost always to procure full and satisfactory evacuation, after which the symptoms generally entirely subside. You will recollect that in the case of the nurse the bowels were not acted upon for six days, at the end of which time threatening symptoms appeared, but entirely subsided under the course of treatment which I have mentioned. Similar symptoms also occasionally occur, during even advanced convalescence, from too much food or food of any improper kind being taken, and they are best treated in the way I have stated.

"The last remark which I have to make is in reference to the employment of stimulants in the treatment of fevers. Some years ago, under the influence of teaching which I can not but regard as mistaken, stimulants were so largely given in fever and other forms of active disease as to constitute almost the whole treatment, and make it often difficult to decide, when patients were seen, how much of their condition was due to the disease under which they labored, and how much to the treatment employed. Now, however, a more judicious system is followed, and stimulants are less constantly and freely given. But there seems danger that in the reaction the discontinuance of the use of stimulants should be carried too far. Believing, as I do, that the abuse of fermented beverages is the greatest social bane in this country, I should have been glad, could I conscientiously have done so, to have recommended the entire abandonment of the use of stimulants in the treatment of fever and other forms of disease. To do so would, however, I believe, be to deprive ourselves of one of the greatest means of alleviation which we possess, though one which requires great care in its use. It would be very much more satisfactory if the employment of these and other remedies could be reduced to some definite and scientific rules; and endeavors have been made, by the careful analysis of the results of the different methods of treatment, to deduce such general rules. But the cases which we have to treat are so variable in their character that it is impossible so to classify them as to be sure that the cases compared are really similar, and that the results obtained are to be depended upon as exact. I fear therefore that we must be content still to leave to the judicious physician the choice of the means of treatment to be pursued in any given case, guided by his knowledge of the disease he has to treat, and his experience of the results of the means employed in other similar cases. So far as the use of stimulants is concerned in the treatment of fever, it is impossible to lay down any general rules; but I believe them to be eminently beneficial when given when the active stage of the disease is subsiding, and the patient's power is beginning to give way, with the view of upholding the strength while the disease is in process of cure. If the patient is much prostrated and the pulse weak, intermittent, or irregular, or abnormally slow, they may confidently be given; and if under their use the patient becomes less restless, the pulse improves in character, and the prostration diminishes, they may safely be persevered with. The amount of stimulus which is required must also be left to the discretion of the practitioner; but generally it is more advantageous if exhibited in small doses, repeated when the effect begins to subside. If a given dose exhibited at certain stated intervals seems to excite the patient, it does not follow that no stimulant is required; it may rather be that the dose is too large and the repetition too frequent. When the patient's strength becomes greatly exhausted, as it often does when the crisis of the disease is passing or passed, the very liberal exhibition of stimulants may be necessary; and as the weakness becomes less and more food is taken, the quantity may be greatly lessened; but I think it is a great mistake to suppose that because the patient can be got to take a large quantity of food the use of stimulants is unnecessary. Food, as I have before said, may easily be given too freely. The best results ensue from the judicious combination of moderate amounts of food and stimulus, and this is especially the case at the period of early convalescence. In estimating also the desirableness of administering stimulants in any given case, the question to be asked is not simply whether the patient will recover without their use, but whether he will make an equally good and rapid recovery without them. Typhus and typhoid are diseases of very variable severity, and this is especially the case with typhoid, and there are some cases of both forms which will do very well without any stimulant at all. But, on the other hand, I have not unfrequently seen, in cases of fever which have never been very severe, that the patient will go on from day to day without making any material progress so long as stimulants are withheld, while on the exhibition of a small amount of wine or spirit there has been a marked and quite unmistakable improvement in the condition of the patient, and the case has afterward steadily progressed to recovery. What I would wish to impress upon you is, not that you should make up your minds to give or not to give stimulants in cases of fever, but that you should hold yourselves free to have recourse to them or not to use them, according to the apparent requirements of the several cases which you have to treat. There can be no worse fault in medical practice than to adopt a hard-and-fast rule as to the plans of treatment or special remedies to be employed in any form of disease. You should endeavor to make yourselves fully acquainted with the nature of the disease you have to treat and the condition of your patient, and then prescribe the course of treatment which you think will most conduce to his recovery."

ESMARCH'S BLOODLESS METHOD.—At the Congress of the German Surgical Society at Berlin, in April, an animated discussion followed a paper read upon the above subject by Prof. Esmarch, the originator of the method. The results of the operations in the Kiel Hospital have been very successful since the introduction of the elastic bandage, only one fatal case having occurred in ten of amputation of the thigh, and one in eleven of amputation of the leg. The advantages claimed for the new method are that sponges and digital compression are dispensed with, a uniform pressure exerted on the soft parts, primary adhesion favored, the administration of chloroform in small operations rendered unnecessary by the local anæsthesia which is induced, and serious operations rendered possible by a single surgeon on the battle-field or in the country. In post-partum hemorrhage also the application of the bandage to the lower limbs may save life. Prof. Esmarch confessed to an objection, raised by Hasse, that obstinate capillary bleeding may follow the removal of the bandage, but said it might soon be checked by forceps and water. Prof. Langenbeck spoke very highly in favor of the method, and referred to its great value in operations on the scalp, and especially in the removal of vascular tumors from that situation. Care must be taken, however, in the application of the bandage, particularly in the case of the arm, not to injure the nerves by severe compression. Dr. Bryk, of Krakau, related a case of amputation of the thigh for necrosis about the knee, where fatal pyæmia might have been due to the elastic bandage forcing pus or thrombi from the seat of the disease into the circulation. To this Prof. Thiersch replied that Esmarch had urged the necessity of care in such cases, and that the compression should be begun above the seat of the disease only. Esmarch himself said that in the case of disease about the knee he first bandages the leg, then raises it, passes the bandage lightly over the knee, and again applies it more tightly above the seat of the disease. Somewhat conflicting opinions were expressed by several of the members on the effect of the bandaging on the nerves of the parts, and on their consequent anæsthesia during operation. (Medical Times and Gazette.)

TREATMENT OF ULCERATION OF RECTUM.—It is the experience in the Charity Hospital of New York that in ulceration of the rectum, whether it be venereal, the result of stricture, or any other cause, the application of iodoform is of more benefit than any other agent in hastening a cure and relieving pain. It may be either used in solution or as a suppository. The solution is made by adding from half a drachm to a drachm of iodoform to two ounces of glycerine, and half an ounce used at a time. The suppositories are formed from butter of cacao, each suppository containing five grains of iodoform. Before using it evacuate the bowels by means of a purgative or enema, then apply the iodoform at night. (New York Medical Journal.)

CHANCROIDS.—In the same hospital these sores are first cauterized by pure nitric acid, or the actual cautery, when iodoform proves to be one of the most satisfactory applications. In chancroids of a chronic nature, where the sores have a whitish look, resembling a diphtheritic exudation, bromine has proved to be a most serviceable agent. The method of application is to brush a solution over them two or three times a day. The solution is made by adding half a drachm of Squibb's solution of bromine to an ounce of water. *(Ibid.)*

THE SULPHIDES IN FURUNCULAR AFFECTIONS.—Mr. Louis Lewis (in the Lancet) says: "A patient applied to me suffering from an eruption of boils, which appeared in successive crops and exuded a thin ichorous pus. I prescribed the sulphide of calcium in small frequently-repeated doses (not more than a grain altogether during each day). It was given simply in water, and no other medicine was used. In a few days the pus became creamy and laudable, the inflammation became limited in area, and the boils rapidly died away, no fresh crop appearing." (Medical Record.)

NEW METHOD OF CAUTERIZING ULCERS, ETC.—Dr. Thores states that the following method of cauterizing affords the best of results, especially for ulcers, granulations of the cervix, fissure of the anus, etc. This consists in first cauterizing the part with a stick of nitrate of silver, and then immediately touching the white eschar thus produced with a stick of zinc. The eschar at once becomes black and hard; it becomes detached in from twenty-four to seventy-two hours, and exposes a clean sore, which generally cicatrizes very promptly. *(Gazz. delle Clin.—Ibid.)*

HYPODERMIC INJECTION OF ERGOTINE IN VARICOCELE.—In a case of varicocele which had existed for a long time Dr. Bertarelli, of Rome, injected a solution of ergotine under the skin of the scrotum. The solution consisted of ergotine, one gramme; water, with a little alcohol, two grammes. The patient was ordered to maintain absolute repose and to make local application of cold compresses. The next day the varicosities had disappeared. The success was complete after another injection, which was attended by but slight local reaction. Dr. Cittaglia had cured another case of varicocele by the same treatment. By the eighteenth day nearly all the varicosities had disappeared, and there was nothing but a slight induration of the corresponding testicle to be observed. *(Alm. di Thérapie,* 1874.—*Ibid.)*

THE TOPICAL USE OF CHLORATE OF POTASH.—Professor Gosselin thinks the chlorate of potash superior to all other local remedies in mercurial stomatitis. It does not, like some others, injure the teeth, but frequently does not act with the promptness desired. Professor G. uses a saturated solution of chlorate of potash, and when there is much pain he adds laudanum and cherry-laurel water. Pledgets of lint are to be wet with this solution and placed between the gums and the cheek, above and below. The lint is retained several hours, and may be renewed two or three times a day. *(Franc. Méd.—Ibid.)*

TREATMENT OF CEREBRO-SPINAL MENINGITIS.—Concerning this vexed question Dr. Dowse, of the Central London Sick Asylum, says:

1. It has to be considered how to relieve the vessels of the cord, and to equalize the action of the vaso-motor system of nerves. Nothing appears to be of greater service in effecting this than the ergot of rye and belladonna. The former he has prescribed in decided doses, such as half a drachm of the powder every four hours; and the latter he has applied to the spine in the form of a belladonna paste, made by mixing the extract with one third its weight of glycerine.

2. To check the reflex vomiting small pieces of ice must be swallowed, not sucked, as the full effect of its sedative influence upon the stomach is thus obtained.

3. To relieve constipation Dr. Dowse prefers the adminis-

tration of a pill of the watery extract of aloes, for the reason that it acts upon the mucous membrane of the rectum and dilates the hemorrhoidal veins.

4. To relieve sleeplessness both chloral and bromide of potassium have proved ineffectual, but what he found of most service was a suppository of eight grains of the extract of henbane, with four grains of the extract of conium.

5. One essential practical point must not be forgotten—namely, to keep the paralyzed bladder constantly free from urine. It is not sufficient to draw off the water night and morning, which is the course usually adopted, but a self-retaining catheter must be kept continually in the viscus.

6. In reference to diet, it ought to be both nutritive and stimulant from the first.

7. There is a stage in the treatment of this disease where quinine in large doses becomes of the most signal value—at that crisis when exhaustion appears imminent; the skin covered with sweat; temperature 102° to 105°; pulse small, weak, and over 120. But more especially is quinine invaluable when rigors supervene, when it never fails to have a good effect. It must, however, be given in ten or twenty-grain doses; and, if the stomach can not tolerate it, must be introduced into the system by the rectum.

8. The abstraction of blood in any manner is not advisable. (Medical Times and Gazette.)

Notes and Queries.

THE HOSPITAL OF ST. MARY AND ST. ELIZABETH.—The following report of the opening of this new hospital we abstract from the Courier-Journal of the 2d and 3d of June. Yesterday afternoon the faculty of the Medical Department of the University of Louisville, a large number of the most prominent physicians of the city, about forty medical students, a number of distinguished members of the city council, and many of our most prominent and wealthy citizens, with a goodly number of ladies, assembled at the new hospital of St. Mary and St. Elizabeth, corner of Twelfth Street and Magnolia Avenue, to witness the dedication of this magnificent institution. The greatness of a city may truly be said to be expressed by the facilities she enjoys for the relief of her indigent sick. A little balm and a few nights' shelter from the merciless storm may save many a fellow-creature from the torture of disease that may cripple for life.

The hospital is furnished in a most elegant manner. There are six public wards and a large number of private rooms handsomely furnished. The whole is under the superintendence of Sister Lucy, of Nazareth, aided by seven others.

The faculty of the University of Louisville are to become the regular attendants upon the wards. The patients, however, are at liberty to choose any physician they please without any expense to the institution.

After passing through the entire building the visitors were ushered into the capacious dining-room and partook of a collation. The Hon. Wm. Kaye was introduced by Professor John E. Crowe, and in the absence of Mr. Jacob, the mayor of the city, tendered thanks on behalf of the city council for the gift of so magnificent an institution to the sick poor of Louisville. Mr. Kaye declared that our municipal legislature is ever ready to aid in the amelioration of suffering humanity. Dr. D. W. Yandell, being called on, said:

"Mr. Mayor—You may remember that in that imperishable record left by the ancient law-giver he informs us that he was instructed by his Master to build six cities, to be called cities of refuge. Three were to be on this side the river Jordan and three in the land of Canaan. They were to be set aside as so many places of refuge to which persons overtaken by accidental calamity might flee and escape the avenger; and that these cities might be free to all men it was especially declared that they were not only for the children of Israel, but for the stranger and the sojourner. To make sure that all would know the situation of these havens of safety, finger-posts were placed along the roads which led to them that no time might be lost by the victim of accident in finding his way to their protecting walls. Untold centuries after, but animated by the same spirit which directed the pen of Moses, an untitled citizen has erected here a house of refuge to which the people of every nationality and of every creed, the stranger and the sojourner, may come in time of trouble; and while within its walls may, like the people of old, often escape the most relentless of all enemies.

"Sir, it was my privilege to have enjoyed the friendship of the founder of this hospital. Some years ago, while in New York, talking one evening to him on the subject of hospitals, I remarked that a great defect in the management of most of them in America lay in the fact that they soon became overcrowded with incurables, and that, if I ever had the entire management of one, I would admit only cases of acute and otherwise curable disease. In his earnest, quiet, sweet way he said, 'When I build you one your wishes shall be realized;' and in the charter of this he has incorporated a special provision to this effect.

"Mr. Mayor, the opening of a hospital is justly regarded as a most important event in the history of a city. It is now more than fifty years since two gentlemen, Capt. Thos. Bullitt and Mr. Thos. Prather, names made familiar to every resident of Louisville by a long line of worthy descendants, gave to the city for hospital purposes the beautiful square on which the present City Hospital now stands. Twenty-five years after the National Government erected a hospital, of which it still retains charge, for the care of the hardy men who navigate our rivers and inland seas. To-day we are called upon to celebrate the opening of an institution which has been created by the munificence of Mr. Caldwell. To have erected this commodious structure and dedicated it to God, and then set it aside for the perpetual use of those whom he has declared we shall always have with us, is, in my opinion, to have performed an act which, dictated as this was by love* and refined by religion, may justly be counted as one of the very noblest which has yet been done among men. Nor will it, so long as there is disease in the world, be forgotten. Such deeds can not die. 'They, like the sun and moon, renew their light forever, blessing those that look on them.' Henceforth the poorest and most ignorant man, if he be but an inmate of this house, will have at his command the same professional skill which ministers to the luxurious dwellers in the palaces on Broadway. All the resources of the science and all the cunning of the healing art are his—his by day and by night, and without price. And more than this: here he will have the gentle Sisters of Nazareth, whose peaceful faces, noiseless footfalls, and voices musical with sympathy will be ever around his couch.

"The care of the sick poor of this noble charity has been delegated to the Medical Faculty of the University of Louisville. I stand here to-day, in the name and as the representative of that body, to pledge you in presence of these witnesses that the utmost fidelity and the tenderest care shall be given to this great trust.

"Mr. Mayor, I would rather have founded this hospital than been the commander of a victorious army. Nay, sir, I would rather have my pathway to the better land—as Shakespeare Caldwell's will be—bedewed by the grateful tears of the sick poor restored to health, than made luminous by banners won on a thousand battlefields.

Professor J. W. Holland was next called for and spoke as follows:

"In surveying these wards and their accessories, the provisions for shelter, for ventilation, for solid comfort they afford, we recognize that the noblest of human enterprises, a perfectly-equipped hospital, is to-day dedicated to the most humane uses. With us it stands immeasurably higher in rank than the grandest piece of architecture whose sole object is to perpetuate the builder's name. The Egyptian constructed a meaningless pyramid, which in the end is but a puzzle to antiquaries. The lamented founder of this hospital, with the proceeds of honorable toil, rears not a pile of huge stones quarried by groaning multitudes and cemented with their tears and blood, but a perishable house, where groans are to be hushed in easy sleep, where tears of anguish are to be dried, where flowing wounds shall be stanched and healed.

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* The hospital was erected by Mr. Caldwell as a memorial to his wife, a lady reared in this city and possessed of all the virtues which adorn the best of her sex.

"Even when these walls shall crumble, as did his bodily frame, the good work done in them shall, like his benevolent deeds, influence for happiness many men and women through countless years.

"In common with all men we honor and thank the man who liberally endows a university; we delight to acknowledge the generosity of him who presents to his fellow-men a museum of art; we revere the practical piety of him who builds a church to his religion; but as humanitarians we can but think that accumulated wealth has served its loftiest purpose when it is devoted to an institution like this. In a hospital the powers of the body are strengthened at their utmost need, while high faculties of the mind and broad religious sýmpathies may here have the rarest cultivation. Besides its chief function, the care of the sick, it is the best school for the physician to train his faculties, mature his judgment, and acquire the ready skill and confidence necessary in the practice of his profession. Here does the devotee of charity find her fitting sphere. Here, like ministering angels, shall be found, in long watches by the couch of pain, these saintly sisters, the Healer by Gennesaret walking the rounds with them to guide and comfort them. Many a sufferer who has been chilled by the world's cold neglect in their presence shall take heart again as the *idea* of their lives steals into the soul. Upon men made grasping and selfish by the hard experience of life the memory of Shakespeare Caldwell shall descend, like the angel upon Siloam's pool, to stir the emotional deeps and restore the morbid spirit to the pure health of charity."

At the conclusion of Professor Holland's speech Dr. L. P. Yandell, in response to a toast, said:

"MR. PRESIDENT—I had not the least expectation of being called upon to say any thing on this occasion, and after the eloquent speeches of the gentlemen who have spoken I really feel that any thing I might say would be superfluous. But the occasion is one of so much interest to me, the charity in honor of which we have met here this afternoon so noble, especially the gift of its founder is so magnificent, that I am impelled to express the feelings of gratitude with which they fill me.

"Half a century ago, as you have just heard, Louisville was without a hospital. Dr. McMurtrie, her early historian, wrote, in 1819, that 'not a hut or shelter had been provided for the homeless victim of disease.' Two of her generous citizens moved for the remedy of this great want, and the Marine Hospital on Chestnut Street is the result of their liberality. Capt. Thomas Bullitt, who surveyed the ground on which Louisville is built, in 1773, united with his friend, Mr. Thos. Prather, fifty years after, in the princely gift to the city of the ground on which the hospital stands. That institution is a monument to the memory of those public-spirited men more durable than brass or marble. Mr. Caldwell, following in the same noble path, has rendered his name illustrious. Thousands yet unborn will rise up to bless his memory.

"Hospitals are institutions of the Christian era. They were unknown until the Savior of men came and preached the gospel to the poor. As a citizen of Louisville I experience a feeling of no ordinary delight that its resources for alleviating the sufferings of the poor have been again enlarged by the erection of this beautiful and comfortable edifice.

"It is an interesting fact that this hospital is to be associated in its administration with another institution in which the citizens of Louisville have always taken a deep interest. I allude to her university. The medical professors of the university are, as I understand, to be the physicians and surgeons of this noble charity. The poor man who comes here for medical aid will thus command the best medical talent of your city. All that science and art and skill can do for his relief will be fully extended to him. And as the school founded by the liberality of the city advances and aids in perfecting the profession, your hospitals will be more efficiently administered; and at the same time that the hospitals are reaping benefits from her university, her university is deriving great advantages from her hospitals. It is in them that disease is studied most successfully. It is by them that the great improvements in medicine are made. Thus they mutually aid each other, and thus every new hospital founded in our city helps to widen the fame and the usefulness of our university.

"In looking through the wards of this fine edifice it is a most delightful thought to me, Mr. President, that the sufferers who come here for relief will not only have the best surgeons and physicians in Louisville to prescribe for them, but will be attended by angels of mercy in the shape of these Sisters of Charity; that the poor, friendless stranger, away from home and mother or sister or wife, will have the gentle hands of women to smooth his pillow, and hearts that will be touched with pity for his sufferings."

Speeches were made by Dr. Edward Palmer, Dr. Talbott Owen, Dr. Reynolds, and others.

Immediately after the inaugural ceremonies Dr. Reynolds performed an operation on the eye, the first done in the institution.

CONVENTION OF EX-CONFEDERATE SURGEONS.—The convention assembled at Atlanta, Ga., May 20, 1874. Dr. S. H. Stout was called to the chair and Dr. Charles Pinckney appointed secretary. Dr. Stout made appropriate remarks touching the object of the assemblage and the ends which it is proposed to accomplish, and paid a feeling but just tribute to the heroism and self-sacrifice in the line of duty which he had observed in many of the medical officers who had been under his supervision during the great struggle. The medical officers present recorded their names, with date of commission, capacity in which they served, and date of discharge or parol.

The following committee was appointed by the chair to make nominations for permanent officers of the body, namely: Dr. P. A. Holt, of Florida; Drs. W. T. Goldsmith, W. A. Carswell, E. D. Newton, W. A. Greene, J. W. Oslin, H. F. Campbell, of Georgia; Dr. A. G. Emery, of Alabama; Dr. M. W. Francis, of Alabama; Dr. John M. Johnson, formerly of Kentucky; Dr. S. H. Stout, formerly of Tennessee; Dr. A. C. Fox, formerly of Virginia; and Dr. E. J. Roach, formerly of Maryland.

A letter was read by the secretary from ex-Surgeon-general S. P. Moore, of Virginia, expressing his regret that he could not be present, and expressing his warm approval of and hearty co-operation in the objects of the meeting, and desiring the enrollment of his name as a member.

The following committee was appointed by the chair to report business for the action of the convention, namely: Drs. J. P. Logan, H. F. Campbell, Robt. Battey, E. J. Roach, and W. O. Owen.

Dr. Goldsmith, chairman, stated that the committee on permanent organization of the convention of medical officers of the late Confederate States army and navy beg leave to make the following nominations:

"The late surgeon-general, Dr. S. P. Moore, of Richmond, to be permanent president of this convention, and Dr. H. F. Campbell, of Georgia, to be vice-president at large; also district vice-presidents: Dr. J. E. Claggett, of Maryland; Dr. Hunter McGuire, of Virginia; Dr. S. S. Stachwell, of North Carolina; Dr. A. N. Talley, of South Carolina; Dr. W. F. Westmoreland, of Georgia; Dr. P. A. Holt, of Florida; Dr. C. J. Clark, of Alabama; Dr. S. V. D. Hill, of Mississippi; Dr. E. S. Drew, of Louisiana; Dr. J. N. Hayden, of Texas; Dr. Paul F. Eve, of Tennessee; Dr. D. A. Linthicum, of Arkansas; Dr. David W. Yandell, of Kentucky; Dr. L. T. Pim, of Missouri. Also as vice-presidents at large all former medical officers of the United States army and navy who resigned their positions for service in the Confederate States army and navy. They also recommend that the medical officers of the late Confederate States navy be requested to co-operate with the officers of this convention. They also nominate Dr. S. H. Stout for secretary, Dr. Charles Pinckney for assistant secretary, and Dr. Edwin D. Newton for treasurer of this convention.

It was resolved that all surgeons, assistant surgeons, and acting assistant surgeons of the late Confederate States army and navy be admitted to register as members of the convention.

A telegram was read from Vicksburg, Miss.: "The undersigned, ex-Confederate medical officers, send greeting. They regret their inability to be with you in person, and assure you of their sympathy and co-operation in this beginning of annual reunions." (Signed) D. W. Booth, L. M. Capers, J. R. Hicks, J. R. Barnett, J. M. Hunt, P. O'Leary, W. E. Brickell, G. W. Howard, and P. F. Whitehead.

"*Resolved*—1. That this organization shall be called the 'Association of Medical Officers of the late Confederate Army and Navy.'

"2. The objects of the association shall be the collection and preservation of the medical records and statistics of the late Confederate States army and navy, the collection and publication of such scientific facts as may be useful to the association and to the medical profession, the preparation and publication of biographical notices of deceased members of the late medical staff, and the cultivation of social and friendly intercourse among its members.

"3. The officers shall be a president, a vice-president at large, one vice-president from each state represented in the said army, a secretary and assistant secretary, and a treasurer, who shall be elected annually.

"4. The meetings shall take place annually at such time and place as the association may determine.

"5. There shall be an assessment to meet current expenses of such sum as may be determined by the body.

"6. There shall be the following standing committees, namely: Committee on Hospital Service, Commiteee on Field Service, Committee on Necrology, Committee on Miscellaneous Reports, and Committee on Hygiene. There shall also be a special committee, consisting of three members and the secretary, invested with discretionary powers, of which the secretary shall be chairman, to whom shall be referred all matters for publication."

"*Resolved*, That a committee of five be appointed to prepare and submit to the next meeting of the association a form of permanent constitution and by-laws for its government. The chair appointed Drs. Battey, Cumming, Logan, Miller, and Newton.

SECOND DAY.

A telegram was read from Dr. Hunter McGuire, of Richmond, Va. Dr. Logan presented a communication from Dr. John M. Johnson, president of the Savannah Association of

Medical Officers of the late Confederate States Army and Navy.

On motion of Dr. Stout it was resolved that a committee of five members be appointed to prepare an address to the members of the medical staff of the late Confederate States army and navy, explaining the objects of this association and asking their co-operation.

On motion of Dr. Logan it was resolved that we recommend the formation of local societies for the furtherance of the objects contemplated by this association. Dr. Logan read a telegram from Dr. D. W. Yandell, of Kentucky, expressing his hearty co-operation and bidding the association God-speed.

Dr. Westmoreland had letters from Dr. J. T. Gilmore, of Mobile, and Dr. C. B. Leitner, of Geneva, Ga., regretting their inability to be present, and wishing the organization every success.

On motion of Dr. Andrews it was resolved that the newspapers throughout the late Confederate States be requested to publish the address to the medical officers of the late Confederate States army and navy, which will be issued by the committee appointed for that purpose.

On motion of Dr. W. F. Westmoreland it was resolved that a committee of three be appointed to confer with the Surgeon-general of the United States army in reference to the captured archives of the medical department of the late Confederate States, as to the extent to which they can be used by this body, and all other matters pertaining to the publication of the same, and report the result of the conference at the next meeting of this body.

On motion of Dr. Goldsmith it was resolved that all ex-Confederate medical officers be requested to furnish to Dr. S. H. Stout, secretary, Atlanta, Ga., their names, with their rank and period of service, etc., for enrollment as members of this association, with the understanding that they shall be considered members upon such enrollment.

Dr. Stout read a communication tendering to the association the records of the Hospital Department of the Army of Tennessee in trust, provided that a safe place be secured for their deposit. (Signed) S. H. Stout, medical director for Hospitals of the late Confederate Army of Tennessee. The communication was received and ordered to be recorded.

Dr. Logan read the following: "The Confederate medical records belonging to the late Dr. A. J. Foard, medical director of the Western Army, now in my possession and at my disposal, are hereby tendered to this association, upon condition that proper steps are taken for their preservation and utilization by this body." (Signed) J. P. Logan, M. D.

On motion of Dr. Green, resolved that former medical officers of the United States army and navy, who resigned their positions to take service under the Confederate States, be registered, upon their application for membership, as honorary vice-presidents of this body.

On motion of Dr. Newton, resolved that the vice-presidents of each state be authorized to appoint an executive committee to assist in procuring reports, organizing auxiliary societies, and promoting the objects of this association.

On motion of Dr. Stout, resolved that the Committee on Constitution and By-laws be instructed to take into consideration the feasibility of so organizing the association as a whole, and in its various divisions, as to preserve the *esprit du corps* of each branch of the service and of each department thereof; and of so arranging the work of the association and of local organizations co-operating with it that the labor and contributions of the officers of one military department shall not be confused with those of another; the infantry and artillery with the cavalry arm; those in a given brigade, division, or corps with those in another; the hospital service with the field service; nor the work of the jurisdiction of one medical directorship with that of another. And further, that it is the sense of this association that the records of the army and navy medical examining boards should be presented and their archives preserved.

"*Resolved*—1. That Dr. J. D. N. Cullen, medical director of Longstreet's corps, be requested to prepare a sketch of the organization and service of the medical department of the Army of Northern Virginia.

"2. That Dr. Chas. H. Smith, medical director of the hospitals at Richmond, prepare a similar paper on the hospitals of that city.

"3. That Dr. E. A. Flewellen prepare a similar paper on the field service of the Western Army; that Dr. S. H. Stout prepare one on the organization of the hospital department of the Army of Tennessee; that Dr. A. N. Talley prepare a report of the army medical examining board; all to be delivered at the next meeting."

On invitation, the vice-president, Dr. Campbell, addressed the body upon some of his observations in the Army of Virginia. He alluded to the successful treatment of intermittent fever by the use of oil of turpentine, the scarcity of quinine necessitating search for substitutes for it. He thought that the turpentine increased the renal secretion, and eliminated thereby the *materies morbi.* This and other expedients of necessity should be brought out and put upon record. He related a case of wound in the calf of the leg, ball passing between the tibia and fibula. There was great inflammation, threatening gangrene, discharge of dirty sanies, and hemorrhage from the posterior tibial artery. The question of amputation or ligation of the artery was discussed. It was decided to ligate the femoral in Scarpa's triangle, to both control the hemorrhage and at the same time modify the inflammation. The operation was successful, and a good limb was saved. He related several other cases of ligation of principal arteries for the purpose of modifying inflammation, with good result. He then discussed elaborately the subject of inflammation, its causes, characteristics, and the methods of treatment.

"*Resolved*, That an abstract of Dr. Campbell's remarks upon inflammation and its treatment be furnished the secretary for publication, and that Dr. C. be requested to further elaborate his ideas upon the subject in an essay to be read at the next meeting of the association.

"*Resolved*, That the Committee on Hospital Service be instructed to obtain information in regard to the results of the use in Confederate hospitals of Dr. Nathan R. Smith's anterior splint in fractures of the lower extremity."

The president appointed the following chairmen of committees, who are to be allowed to select their own assistants, namely: Committee on Address, Dr. S. H. Stout, Atlanta, Ga.; Committee on Hospital Service, Dr. J. B. McCaw, Richmond, Va.; Committee on Field Service, Dr. D. W. Yandell, Louisville, Ky.; Committee on Naval Service, Dr. W. H. Spotswood, Pensacola, Fla.; Committee on Necrology, Dr. J. P. Logan, Atlanta, Ga.; Committee on Miscellaneous Reports, Dr. E. D. Newton, Athens, Ga.; Committee on Hygiene, Dr. W. H. Cumming, Atlanta, Ga.; Committee on Membership, Dr. J. D. N. Cullen.

Dr. Newton read a memoir of Medical Director Lafayette Guild, in which he paid a merited tribute to the official and private character of the deceased. Referred to Committee on Necrology.

Drs. Eldridge, Stout, and Barnes were appointed a committee to collect the facts in regard to the medical and sanitary history of Andersonville prison.

Dr. W. H. Cumming was requested to prepare a paper on vaccination, its results, normal and abnormal, as manifested in the army of the Confederate States, to be presented at the next meeting.

The committees on Field Service and Hospital Service were instructed to report upon the results of the use of indigenous remedies in the late Confederate States at the next meeting.

After the usual resolutions of thanks the association adjourned to meet in Richmond, Va., on the first Wednesday in July, 1875.

SOUTHWESTERN KENTUCKY MEDICAL ASSOCIATION.—This society elected, at its late meeting in Paducah, the following officers for the ensuing year:

President—Dr. O. B. Withers, of Lyon County; *First Vice-president*—Dr. L. M. Lovelace, of Ballard County; *Second Vice-president*—Dr. J. J. McGee, of Graves County; *Recording Secretary*—Dr. J. W. Singleton, of McCracken County; *Corresponding Secretary*—Dr. John Anderson, of Fulton Station; *Treasurer*—Dr. T. Hood, of Paducah.

Papers were read by Dr. O. B. Withers on puerperal eclampsia, and Dr. J. J. McGee on extra-uterine pregnancy. The following standing committees were appointed:

Dr. C. H. Brothers on Consumption; Dr. R. Saunders on Hypodermic Injections; Dr. J. C. Brooks on Diseases of the Eye; Dr. E. Charlton on Neuralgia; Dr. L. M. Lovelace on Pseudo-membranous Croup; Dr. J. W. Becker on Cholera; Dr. R. J. Howard on Medical Ethics; Dr. J. W. Singleton on Doctors' Poor Pay; Dr. D. Futrell on the Medical Uses of Tannin; Dr. T. H. Hood on Bright's Disease.

MEDICAL AND SURGICAL MEMOIRS: containing investigations on the nature and treatment of various diseases during a period of twenty years, by Joseph Jones, M. D., Professor of Chemistry and Clinical Medicine, Medical Department of the University of Louisiana. These Memoirs will embody the investigations made by Professor Jones at the bedside during a period of twenty years, and can not fail to possess the greatest interest to both the student of medicine and the active practitioner. In a circular received from the author we are assured that he has "spared neither time nor expense in the effort to accumulate accurate and practical results," and all who know Dr. Jones will believe him. The entire work (three volumes) will be illustrated by numerous carefully-recorded cases and a large number of microscopical observations of the solids and fluids in disease, and will contain a vast number of original observations upon the temperature, pulse, respiration, and pathological changes in various diseases. Price, $5 per volume to subscribers. The first volume will be ready for the press on or about the 1st of January, 1875. The remaining volumes will follow at regular intervals. Persons desiring to become subscribers will please address Joseph Jones, M. D., P. O. Box 1500, New Orleans, La.

SUN-STROKE.—We subjoin an extract from a letter recently received from Dr. S. Littell, of Philadelphia:

"The origin of many diseases, and especially those of endemic and epidemic character, in variations of electrical tension, which I have advocated in your columns and elsewhere, affords to my mind a ready solution of many problems not satisfactorily explained on theories commonly received, and, among others, of the phenomena of sun-stroke, which, if the heat of the last few days be any token of what is to follow, may be as prevalent during the next two months as it was in the disastrous summer of 1872.

"Sun-stroke, though it may subsequently develop into cerebritis or meningitis, is in the first instance merely nervous exhaustion, and requires for its treatment cold applications and the administration at short intervals of diffusible stimulants, especially those which, like the carbonate of ammonia, tend to excite and support the action of the heart.

"Caloric, light, electricity, galvanism, and magnetism are now generally admitted to be modifications of the same element, and the nervous force must be placed in the same category; for, if not absolutely identical with electricity, it is so manifestly and closely analogous thereto that for all practical purposes it may be regarded as the same, held, of course, in subjection and subservience to the laws of life. Now, though man is so constituted that he can exist in all climates, experience shows that in equatorial regions, and in warm weather every where, the brain performs its functions less perfectly and energetically because of the presence in undue degree of a kindred power—caloric—enfeebling and deranging its action. If the temperature be high and long continued, there may be complete exhaustion of nervous force, leaving that organ pretty much in the condition of a leyden jar after its discharge; a state of things which is neither more nor less than sun-stroke, and may terminate fatally and immediately, or otherwise, according to circumstances. A similar phenomenon, more temporary in its duration because of the more temporary operation of the cause, is seen in the faintness produced by the imprudent and prolonged use of the hot bath, resulting also in some cases in death."

THE WARWICK COUNTY MEDICAL ASSOCIATION.—This association met at Booneville, Ind., June 2d, with Dr. W. L. Barker in the chair and Dr. W. B. Scales recording secretary. It appears that some good work was done, Dr. Keegan reading a practical paper on the *treatment of pneumonia*, and Dr. Ballinger a timely essay on *consultations*. The association gives promise of promoting the harmony and efficiency of the profession in Warwick County, a district which contains some of the best medical men in the state.

TÆNIA SOLIUM IN AN INFANT EIGHT MONTHS OLD.—Dr. Jacob Geiger, of St. Joseph, Mo., narrates the following case: "Was called to see L. B., a girl eight months old, suffering from bronchitis. Up to this time she had been quite well. Her bowels being costive, I directed castor-oil with a few drops of turpentine. A free evacuation was produced, which, however, contained several segments of tape-worm. In a few days, after recovery from the bronchitis, I directed a mixture of the liquid extract of fern-root and honey, to be given night and morning. The medicine moved the bowels freely during the three or four days it was administered, and several pieces of the worm were passed, amounting in all to eighteen feet. I have never met with tape-worm in so young a subject.

In Meigs and Pepper's *Diseases of Children* allusion is made to two hundred and six cases of tape-worm, twenty-two only of which were in subjects under fifteen years of age, and the youngest was three years and a half old. How did the entozoön find access to this infant's alimentary canal? Up to this time she had lived exclusively on her mother's milk, drinking water, however, for some time."

KENTUCKY STATE MEDICAL SOCIETY.—The officers elected for the year 1875 are as follows:

President—Dr. J. Baker, Shelbyville; *First Vice-president*—Dr. George Beeler, of Clinton; *Second Vice-president*—Dr. J. Y. Newkirk, of Bedford; *Recording Secretary*—Dr. J. A. Larrabee, of Louisville; *Corresponding Secretary*—Dr. B. F. Logan, of Shelbyville; *Librarian*—Dr. J. J. Speed, of Louisville; *Treasurer*—Dr. L. B. Todd, of Lexington; *Publishing Committee*—Drs. W. F. Owen, W. H. Galt, and R. H. Gale, of Louisville.

The next meeting of the society will be held, April, 1875, at Henderson, Ky.

THE AMERICAN PRACTITIONER.

AUGUST, 1874.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Communications.

I. COMMON CARRIERS AS THE PORTERS OF DISEASE.

BY ELY M'CLELLAN, M. D.,
Assistant Surgeon U. S. A.

The abrupt and startling development of contagions in a community reposing in fancied security from the natural causes of disease is inevitably followed by explanatory theories, many of which are as satisfactory as the ancient verdict of coroners' juries, "died from the visitation of God." One class of scientists are able to draw conclusions only from their individual observations of the local manifestation of a disease, and they discard from consideration all other records; others advance facts which bear evidence of incompleteness and of being forced in support of the especial theory; while a last class of observers, those who may be considered as cosmopolitan, learn early that their personal experience is but as an atom, small and incomplete, insignificant of itself, but combined with its fellows capable of resisting perverted natural forces when they menace humanity.

The cholera epidemic of 1873, as it affected the valleys of the Mississippi and Ohio, most strikingly illustrates these statements. At the majority of localities which were infected the origin of the disease was without difficulty and without doubt determined. At others, the initial case being obscure, the "endemic" or "*de novo*" theories were advanced, and the country was alarmed by the announcement "that at any time, certain conditions being fulfilled, any portion of the United States is liable to the spontaneous generation of this dread disease; that Asiatic cholera is a misnomer; that the proper appellation of the disease is American cholera." In support of this theory the fatal cases of sporadic cholera, which are liable to occur in any community during the heat of summer, are advanced.

The introduction of cholera into certain communities upon the great lines of travel was denied, because the actual contact of the initial cases at such points could not with positiveness be shown. The fact that common carriers may be the insensible porters of disease was overlooked; and although other communities upon the same line of travel were able to demonstrate the importation of the disease, these points could not have been infected in the same way, but were especially selected by some mysterious agency for an endemic demonstration.

The discussion which waged with considerable rancor on all sides was aptly closed by a paper entitled "The Logical Proof of the Contagiousness or Non-contagiousness of Disease," in which paper the learned and illustrious Bellevue professor announces the rather startling proposition "*that cholera, though not a contagious disease, is still a portable disease.*" The dogma is adapted, as an advance from the champion of the non-conformists, to those who may be considered orthodox upon this all-important subject.

The portability of cholera having been established, that of other diseases must be allowed; and it is well to consider carefully the various means by which diseases may be transported, especially as during the present month there have been announced in various sections of the country isolated but fatal cases of disease which were pronounced to be cholera. During an extended journey through the southern and western states ample opportunity for investigation was afforded the writer, whose thoughts have shaped themselves under the heading which has been adopted for this paper.

What is a common carrier?

From a careful reading of Angell we would answer, common carriers are those who transport persons or goods, by either land or water, for hire. Conspicuously at the head of all carriers stand "railway companies." In this paper we have attempted to show in what way they may become the porters of disease, and at the same time to suggest the remedy.

The age demands rapid transit. A traveler anxious to arrive at his distant home avails himself of the one of the many competing lines of railway that offers the greatest annihilation of space. So urgent is this demand that the journey which in the olden time consumed months at the present is but a matter of days, or even hours, and but from fifteen to eighteen days are required to transport a traveler from European ports upon the Atlantic to American ports upon the Pacific Ocean. A map of the United States is almost gridironed, and the community is primitive indeed that is not served by actual contact with or by close proximity to a railway in active operation.

A passenger-train upon any of these roads consists of a baggage-car, one or more coaches for the general traveling public, and generally a Pullman sleeping- or parlor-car for the more exclusive, in addition to the engine furnishing the motive power. A railroad train thus constituted becomes an active agent for the transportation of any contagious disease. The plush or rep-cloth coverings of the seats offer an asylum in its meshes to contagion, while the misnamed *salons* at the end of each car afford unequaled facilities for the distribution and transportation of disease.

Especial attention is asked to the interior of the *salons.* They will be found fitted with a urinal, which, connecting with a tube, allows the urine therein deposited to fall upon the ground below the car; a commode with a hinged cover, containing a funnel-shaped vessel, which empties all dejections therein deposited upon the ground below the car; a large reservoir with movable cover, which contains the drinking-water furnished for the occupants of the car. This in the majority of coaches completes the furniture of the *salon;* but upon some few roads a small wire-gauze-covered box containing chloride of lime is added.

Upon well-appointed roads the urinal and the vessel of the commode, as well as their conducting-pipes, are made of a glazed earthenware, which admits of thorough washing; but many coaches are daily occupied by the public in which the material used is zinc, tin, or iron, and the least possible attention is paid to their cleanliness.

The reservoir of drinking-water is securely fastened to the partition-wall between the *salon* and the coach. A silver-mounted spigot in the general interior of the car compensates the traveler for the polluted source from which the water flows; and unless he has been thoughtful enough to provide his own drinking-cup he must use the mug of tin or pewter, that atom of "civil rights" which, polluted by the contact of many lips, is unmolested in its dirt.

What rational man would place the water-cooler which contains the drinking-water of his family in the water-closet or privy of his establishment? and yet we find upon nearly all the lines of travel this violation of hygienic law.

While the foregoing is strictly true in regard to the majority of railway coaches in the South and West, some notable instances of improvement are found. The coaches upon the roads controlled by the Pennsylvania Company are provided with a cylindrical water-cooler, which projects above the roof of the coach. In no way can the fluid contents of this reservoir become polluted by the atmosphere of the car. The Louisville & Nashville Railroad Company and some few others provide large water-coolers, which are placed at the unoccupied ends of the cars; a great improvement upon the method first mentioned, but still inferior to that of the Pennsylvania Company.

Upon the coaches of the Pullman Sleeping-car Company the objection noted of inclosing the urinal, commode, and reservoir of drinking-water in the *salon* exists; but the dangers which arise from this fault of construction are doubled, from the fact that two *salons* are provided, one for each sex, and the equipment of the *salons*, so far as the reservoir is concerned, is identical.

Upon a railway train thus equipped the task of proving an active agency in the diffusion as well as transportation of disease is far from difficult.

It is almost universally acknowledged that the excreta of persons suffering from contagious or infectious diseases are active agents in its dissemination; that this diffusion may occur from actual contact with the excreta, or from the inhalation of atmosphere impregnated with their products, or from the imbibation or deglutition of fluids or other substances infected with the same. We will suppose an individual from a point infected with cholera enters a coach upon a railway. He may be at the time suffering with the premonitory diarrhea, or he may be seized with the same after the departure of the train. The commode of the *salon* is called into active use, and whenever the desire is present with the egotism of the American traveler the contents of the rectum are discharged. It is true that upon roads ballasted with sand a partial disinfection occurs, and also that many of these dejections take place in isolated positions where no one can be injured; but it is also true that the lines of railroads frequently pass in close proximity to dwellings and other habitations, and that very often the bed of the railroad is at a considerable elevation above the buildings. It has frequently been observed by the writer that the excreta from the *salon* of a railway coach could without doubt fall in close proximity to the wells, drains, and out-houses of dwellings along the roads traversed. In a large inland city the initial case of cholera in the epidemic of 1873 occurred in a small house so located that any substance dropped from passing railroad trains would inevitably fall close to the rear door of the dwelling. Cholera existing upon the line of a railway or at either termini, it is quite as rational to account for the sudden and mysterious development of the disease by such cause as to suppose that an endemic agency has especially been established.

The fetid atmosphere of the *salons* of many coaches is a matter of daily comment among those who are obliged to travel much during the heated term; and if any one doubts the effect of the noxious gases of these rooms upon the drinking-water stored up in them, a small quantity of the permanganate of potash will demonstrate the condition of the water after remaining a night in the reservoir.

Americans demand that transit should be not only rapid but luxurious. This demand is fully met by the Pullman Car Company, whose coaches are attached to nearly all railway trains. These coaches are divided during the night into "sections," which are separated from each other by wooden partitions, and from the remainder of the coach by thick woolen curtains. Equipped for a night's travel, each section forms two beds; the lower composed of the covered seats, a mattress covered with some woolen fabric, two sheets, two pillows (generally in woolen cases, which for use are covered with linen), and one or more heavy blankets. The upper bunk is the counterpart of the lower, save that the framework of the bed is not covered with the same class of material, and during the day is not exposed to contact with the persons of those who may be diseased.

Double glass sash protect each window, and heavy woolen curtains are further provided to protect the traveler from air, sun, and dust. The ventilation of these coaches is a matter of much care upon the part of those having them in charge, but the total air-space of an unequipped car is but 10,080 cubic feet; and allowing but two persons to each section, exclusive of the conductor and his porter, there would be *per capita* a vital air-space of 504 cubic feet. The vital capacity of the coach is, however, materially reduced by the *salons* and by the heavy furniture, which certainly occupy fully one tenth of the air-space. In many of these coaches an apartment is partitioned off for the more luxurious or exclusive of travelers, differing in no way but its isolation from the remainder of the car.

To the credit of the company owning these coaches it must be said that every care is taken to keep all appliances in the most perfect order as regards cleanliness. The coach is ventilated as well and as often as circumstances will admit. The furniture is cleaned frequently during each trip, and the entire coach is stripped and cleaned after each journey. The bed-linen is supposed to be used but once. The mattresses and pillows are aired and beaten. Indeed so many and so great are the precautions adopted to secure cleanliness that at the first glance it would seem unjust and unnecessary to suggest further precautions. But the duty imposed upon sanitarians is imperative, and it is held that by additional precautions the rapid dissemination of contagious diseases will be diminished.

To sleeping-coaches over the ordinary railroad coach must be accorded the palm in the ability to spread disease. In proof of this assertion it is but necessary to ask that the reader recall his individual experience while upon any journey. Within two years small-pox has been epidemic in many American cities. We will suppose a female visiting at an infected point to be stricken with the disease. The patient demands of her friends removal to her home. How difficult it is to a loving heart to resist such appeals! How difficult it is to determine in such a case that sanitary requirements shall be observed! What is to prevent the securing a stateroom of a sleeping-car, and what is to prevent the closely-veiled patient from performing her journey undetected? The conductor of a sleeping-coach is not by law a detective; he has no right to demand the removal of the veil. We may sympathize deeply with the unfortunate female who is seized with this loathsome disease, but we sympathize still more deeply with the human who in the next few hours occupies the same bed.

What is to prevent a syphilitic, with infected mouth or throat, from drinking out of the same glass that the majority of the other occupants of the car are obliged to use? Instances might be multiplied of travelers with all manner of diseases striving to reach their homes, and forced to obtrude themselves upon common carriers. Occasional cases of cholera and yellow fever, frequent cases of acute and chronic diarrhea, children in all stages of cholera infantum, any or all of the fevers or the exanthemata may be found. What is to prevent them? Occasionally an unfortunate female is taken with the pains of labor; and death—not sudden and violent death, but death resulting from the ravages of disease—too frequently rides upon the cars.

It is suggested that the remedies for the evils which have been pointed out are of a ready application. The diagram illustrates the present faulty construction of too many car-*salons*. These evils may be remedied in detail: by removing the reservoir of drinking-water to the unoccupied end of the car; by constructing the entire vessels of urinal and commode so that they may be absolutely cleansed with water at stated intervals. Soap or some other disinfectant should be always present in the urinal; and below each commode should be arranged a bucket, of sheet-iron or some other material, containing a strong solution of copperas, and which should be emptied into a protected cess-pool at stated intervals by an attendant detailed for that purpose.

It is suggested that the Pullman Car Company provide at the termini of all lines upon which their coaches are placed a hot-air closet, similar to that recommended by Ransom, in which all mattresses, pillows, and blankets may be placed, and therein subjected for a time to a temperature of 250° F. after each trip of the coach to which they belong.

It is impossible to prevent the access of infected persons to the interior of railway cars; it is utterly out of the power of the conductors or other attendants to detect and exclude those who may be diseased; therefore the greater necessity exists for the exercise of the greatest prudence. It is suggested that the supply of bed-linen be sufficient in each car; that under no circumstances shall the same articles be used more *than once;* that each car be provided with a supply of permanganate of potash; and that the conductor be instructed at stated intervals to wash out the drinking and washing utensils with a proper solution of this salt, and to pour also a quantity of the same solution through the urinal and commode.

The use of the heavy woolen curtains should be abandoned, and the sections should be arranged as lounges rather than as beds. The thick curtains delude into a sense of seclusion, which leads to injurious disrobing at night upon railway trains, and the surface of delicate and susceptible bodies comes too often in contact with fabrics upon which loathsome diseases have rested.

Upon the roads controlled by the Pennsylvania Company there is now in process of construction an especial car for emigrants, in which, while comfort is secured, there will be no fixtures which will prevent the coach being washed out at any and all times by a full stream of water; and in this way not only filth will be removed, but the car will be kept from much which results from the presence of disease. The construction of such coaches may well be followed by other lines.

LEBANON, KY.

CASE OF UTERINE FIBROID TREATED BY HYPODERMIC ERGOTINE.

BY GEO. COWAN, M. D.

On the 9th day of November last M. C., a colored woman, married, and aged about forty years, presented herself to me at my office for treatment of a fibroid tumor of the uterus. She had noticed its origin eight years previously in the left side of the hypogastrium. Her previous health was good, although she had been sterile all her life. There have been no attacks of metrorrhagia, but has had a few tolerably profuse menorrhagias. There has been during the last four years very obstinate constipation, and it has been lately a very difficult matter to secure a movement from the bowels, although very powerful purgatives and enematæ were used. There have been also uterine tenesmus, swelling of the feet, and pains and numbness in the right leg and side. With these rational signs, and by the employment of the aspirator, Simpson's intra-uterine sound, and bimanual manipulation through the rectum and vagina, a diagnosis of a subperitoneal fibroid growth of great size and density was arrived at. At the most prominent point of the abdomen, which was two or three inches above the umbilicus, she measured thirty-six inches transversely around the body. The shape of the abdomen was nearly symmetrical, and the abdominal walls seemed stretched to their utmost. The surface presented a smooth, uniform appearance, and no pressure could develop any thing like sulci or prominences. The uterus seemed one uniformly hypertrophied mass of almost stony hardness to the touch. The cavity of the uterus could be explored four and a half inches with the sound. Not regarding the operation of gastrotomy as ever justifiable in such cases, and knowing of the method instituted by Hildebrandt of using ergotine hypodermically, I resolved to try it. I accordingly injected into the subcutaneous tissue of the abdomen daily for two weeks one and a half to two grains of ergotine in twenty minims of distilled water. At the end of this time the patient returned to her home, where it was too far distant for me to visit her and keep up the treatment.

The results of the treatment in two weeks' time were as follows: The greatest circumference of the abdomen was reduced to twenty-eight and a half inches; the bowels had acted daily for several days, freely and without the use of medicine; the abdominal walls greatly relaxed, and the presence of several instead of a single tumor detected; and the patient much improved in health, strength, and spirits. She supplied herself with a hypodermic syringe and a solution of ergotine, and I taught her as well as I could the proper use of the instrument. Such frequent and painful abscesses ensued, however, as to require her to abandon its use. The tumor began to enlarge, and her health gradually gave way again.

I visited her, at her urgent request, at her home on the 16th of last March, and found her condition wretched and helpless indeed. Her flesh and strength were now so greatly reduced that she was confined to her bed, her bowels obstinately constipated, and the transverse measurement around the abdomen at the most prominent point thirty-two inches. After several ineffectual efforts to get the treatment properly executed at her home, she returned to Danville for treatment on the 31st of last May, since which time she has been under treatment as before, the dose of the ergotine having been gradually increased to three grains. Her present condition is again very greatly improved. Her appetite and strength are nearly entirely restored, and the bowels are acting daily and freely, and the measurement at the point above indicated has been reduced to twenty-seven and a quarter inches. One symptom, the common enlargement of the abdomen at the menstrual period, has been very marked. At the menstrual epochs she measures from two and a half to three inches more around the abdomen than at other times. Query: may not this symptom be regarded as possessing some value in making out a diagnosis between uterine fibroids and ovarian tumors?

DANVILLE, KY.

CASES ILLUSTRATING THE NECESSITY OF A CORRECT DIAGNOSIS IN DISEASES OF THE SKIN.

BY L. D. BULKLEY, A. M., M. D.

Few expressions are more sad to utter than the one "it might have been," and few errors in medicine are more grievous than those committed through a mistake in diagnosis; and yet in the single branch of diseases of the skin the occurrence is not at all rare to one much busied in this line.

In order to call the attention of the profession to the indispensable necessity of a correct diagnosis for a correct treatment of cutaneous maladies, I will cite some cases which have come under my observation.

Mrs. ——, aged about forty years, presented herself at the Central Dispensary, July 17, 1873, with a frightful destruction of the nose, which had been called *cancer* by those who had

had it in charge previously, and had been treated exclusively by local measures, the disease progressing steadily until she came to my clinic. On examination the whole septum and a portion of the end of the nose was found to have been destroyed; the cavity which presented was one mass of ulceration, edges thick, and from the surface quite a considerable quantity of exceedingly fetid pus was continually discharging. She said that bones had come away from time to time, and the end of the nose, wanting their support, was twisted to one side. No other manifestations of syphilis were present, and as the woman was quite ignorant it was almost impossible to obtain any satisfactory history from her. The conditions present, however, were so thoroughly suggestive of syphilis; the appearance on the nose, a common seat of tubercular syphilis; the absence of any tendency to repair or any incrustation even on the edges, together with its commencement late in life, excluded lupus; the absence of induration, the exfoliated bones, absence of pain, together with the quite considerable quantity of characteristically fetid pus, told against the cancerous nature of the affection.

She was put upon the mixed treatment of hydrarg. bichlor. gr. j, potass. iodid. ʒiv, ferri ammon cit. ʒj, tinct. cinch. co. ℥iv; M. ʒj three times a day; and at the next visit, one week later, the improvement was very manifest. The discharge had diminished very materially, the surfaces had taken on a healthy ulcerative character, and the whole facies of the patient told that the syphilitic poison was now for the first time held in check. *No local treatment whatever was employed*, in order to test perfectly internal medication.

The treatment was continued for some months; the ulceration healed entirely, drawing down the end of the nose and the sides together; and when last seen, a month or so ago, no trace of the old trouble remained, except the disfigurement of the nose incident to the loss of the septum and some of the bones.

No further remark is needed with reference to the error of mistaking such cases for cancer and depending on local measures alone. We only wish such mistakes were less frequent.

On the same day on which this patient was seen at the dispensary a gentleman, J. H., aged thirty-five years, called at the office with an eruption on the forehead which he told me was syphilis following early indiscretion. It had been pronounced as such by many, and he had been repeatedly put on anti-syphilitic treatment for it, but with no effect on the eruption. On casual inspection the affection resembled very much the *corona veneris*, the chronic papular syphiloderm of the forehead. Along the margin of the hair, and projecting in places perhaps an inch from the border, there was an eruption of a darkish-red color, distributed somewhat in circles and parts of circles, elevated possibly half a line, and consisting of a number of rather broad papules touching one another, with a very slight scaling in places. So far there was quite enough to excite a suspicion of specific disorder, but a careful examination of the case precluded any such idea.

It was found that he had been subject to an eruption resembling this off and on for nearly ten years, consisting at times of papules, and again of moist places, which became covered with scabs. He has had it on the head, in the beard, on the breast, and also on the right leg and left wrist. Sometimes the eruption itches excessively, and becomes covered with scales. On inspection the whole head is found to be covered with a somewhat elevated eruption of the skin, red and scaly, slightly sensitive to pressure, and the appearance on the forehead is but the extension of the same eczema. Eczema is further found to be hereditary in his family; one of his children was brought to me shortly after with marked strumous eczema with accompanying otorrhœa.

In order to demonstrate the non-specific nature of the eruption to his satisfaction and mine he was given only local treatment, as follows: Liquor picis alkalinus (picis liquidæ ʒij, potass. caustic ʒj, aquæ ʒv. M.); diluted one part to twenty-four of water, rubbed into the affected parts, to be followed by tannin ʒj, ung. aquæ rosar. ℥j. M.; also some pills of blue mass, colocynth, and ipecac, followed by a Sedlitz powder.

July 24th, one week after the first visit, there is found to be a very marked change in the appearance of things. The entire scalp is smooth, including the affected portion of the forehead, and is but little red. A change was apparent after the first application, and the improvement has continued steadily since; there is now no itching. Ordered ferri amm. citrat. ʒj, liq. potass. arsenit. ʒjss, liq. potassæ ʒiv, tinct. nuc vom. ʒij, tinct. cinch. comp. ℥iij. M.; a tea-spoonful after meals in water.

September 2d: Head remained free from eruption for three weeks, and then the disease re-appeared slightly on the forehead; but a diligent application of the local treatment removed it promptly, he continuing the internal medicine.

On a subsequent occasion, September 16th, he returned with another crop of eruption following over-indulgence in eating and drinking at supper. He was given a diuretic mixture after first taking a couple of the pills of blue mass, colocynth, and ipecac, and relief was as prompt as in the first instance.

These two cases, presenting themselves on the same day for the first time, and then returning each at the expiration of one week with the whole appearance of affairs entirely altered, together with the mistake in diagnosis which had previously been made in each instance, produced a strong impression on my mind, and I can not refrain commenting a moment on them.

Here was a woman in whom a serious disease had attacked a very prominent member, had already produced fearful destruction, and which afterward left an indelible and unsightly disfiguration of countenance; where the true nature was constitutional, with a known and effective antidote; who was treated by local means for a long time, and allowed to suffer great detriment from want of care or knowledge, or probably both, in making a correct diagnosis. And again, the second case, that of a man with well-defined eczema, who is repeatedly subjected long and ineffectually to the depressing influence of unnecessary mercurial treatment, together with the tormenting idea that he had an incurable syphilitic disease, when his eczema was readily removable for a time under the mildest local measures.

Mr. E., aged fifty-three years, quite prominent in state politics, had had an obstinate ulcerative disease on the back of the right hand for nearly two and a half years before I first saw him, Nov. 8, 1872. He is a large, well-developed man, accustomed to high living, has acne rosacea, and has had eczema in different parts of the body, which has come and gone, never giving much trouble. About twenty years ago he had an eruption on the back of the left hand much resembling that now on the right, which lasted some time and finally healed, after causing the loss of the nails on the middle and ring fingers, leaving the skin perfectly natural, with hairs perfect, and no cicatricial tissue.

About two and a half years since he knocked the skin from the back of the middle phalanx of the third finger of the right hand, whereupon the present trouble began, and has continued since. The ulceration from the abrasion passed around the finger very slowly along the palm to the middle finger, and spread thence to the ends of the fingers on to the thumb, and finally around again to the back of the hand. Much of the difficulty consisted in thickening of the skin with cracking, and when these cracks were covered with court-plaster for protection ulcers resulted beneath the plaster. The parts which have been affected are perfect, no scarring resulting; the hairs are perfect, and the glands appear the same.

When first seen the back of the right hand appeared to be the seat of an ulceration one and a half by three fourths of an inch in diameter, lying longitudinally over the first metacarpal bone, with a smaller circular ulcer nearer the thumb, and a small superficial one in the flexure of the thumb and forefinger. The larger ulcer has hard, everted edges, is of a livid hue, with unhealthy granulations and some sloughing tissue, quite superficial and still adherent, and around the ulceration the skin is thickened for about an inch; this is red and inflamed. This destructive process penetrates deeply between the first and second fingers. He has heretofore been treated locally, with a steady and latterly rapid extension of the disease.

Considering the length of time the ulceration had resisted treatment, and that from the hands of very able men, the peculiar indurated edges, unhealthy granulations, and sloughing tissue, I determined that there must be some other agent than simple eczema at the root of the difficulty, and felt certain of a syphilitic taint, although the patient denied ever having had the primary disease, and gave no history of the disorder. He was told to continue the present local treatment, in order to prove the point; and was given pills of proto-iodide of mercury, one half grain morning and night, and about eight grains of iodide of potassium, with iron, nux vomica, and cinchona after meals.

The ulceration improved from the first, as repeated notes show, until in four weeks it was reduced to half the size, with a healthy granulating surface, surrounding thickening much reduced; and two weeks later it had entirely healed over, the thickening being also much less. On former occasions when a spot has healed there has always much thickening remained, which increased until ulceration again occurred. The diseased parts have never looked before as they do now; the hand has not been as well for two and a half years. One month later the hand was found in still better condition; the traces of disease were rapidly disappearing, and the hand was in constant use, having been quite disabled previously. He was still continuing the mercurial and the iodide mixture, and was directed to further continuance. It is now eighteen months since the patient was last seen, and the disease may safely be recorded as entirely overcome.

Here we have a gentleman who was subject to eczema in whom a latent syphilitic poison, previously undiscovered, rendered the local disease incurable; in other words, we have what has been called syphilitic eczema—really a tubercular syphilis engrafted on eczematous disease. Local treatment failed entirely, in striking contrast to the last case, and the error was in not making a correct diagnosis; for no one at all acquainted with even the description of eczema could on careful analysis pronounce the ulceration on the back of the hand to be such. Syphilis with its protean forms is meeting us on every hand; now in obscure nervous lesions, again attacking the lungs, presently the deeper portions of the eye, or in another the testicle; abortions and still-births are among its very common results, while the numberless alterations of the skin are every-day occurrences. We can seldom be sure of its absence, and it behooves one to carefully consider its possible presence whenever lesions of a strange and unaccountable nature are found in any organ. It is not necessary nor is it always possible to make out a clear history in every case, for many instances of syphilis are constantly occurring where the patient is unconscious of its lesions. On the other hand, the suspicion of syphilis may be wrong, and cause great detriment to the patient, as in the second case given. Safety lies only in careful clinical study.

NEW YORK.

TRICHINOSIS.

BY A. J. PARKER, M. D.

New interest attaches to the study of *trichinosis* from the fact that several cases of this disease have recently occurred in some of our western states.

The cause of the disease, the *trichina spiralis*, was first discovered by James Paget, in 1835. Specimens of this entozoön were prepared and mounted by him and placed in his cabinet, where they were afterward found by Professor Owen and named; other microscopists also found this entozoön; but no one recognized it as the cause of the disease now known as *trichiniasis*, or *trichinosis*, until 1860, when Zenhier, of Dresden, showed that the disease was produced by eating ham or sausage insufficiently cooked. Many cases have been subsequently reported, Germany alone contributing, up to 1867, more than two thousand, the frequent occurrence of the disease in that country being due to so large a consumption of meat uncooked or partially cooked.

The average size of this little worm, as given by Dr. J. Stockton Hough, is one thirty-third of an inch in length by one seven-hundredth of an inch in breadth.

The fact is now well established that trichinæ may live in the larval or encysted state, in salted and smoked meat, over twenty years, and all that is necessary to determine their further development is a lodgment in the stomach or intestines of some animal.

The great tenacity of life these parasites possess is further shown by the experiments of Hertwig, who "boiled trichinous meat cut in slices the size of one's thumb for twenty-two minutes without killing them, but the same operation carried on for three minutes longer proved fatal." Virchow proved that they could be subjected to the action of chromic acid for eight days apparently without injury.

While in the encysted state the sex can not be determined, but after being taken into the stomach they rapidly develop; and, according to Fiedler's experiments upon rabbits, "they may become sexual during the second or third day, and on the fourth day the embryos quit their mother to commence their peregrinations."

The females are of greater length than the males, and much more numerous, being about seven to one, each female producing, according to different observers, from two hundred to one thousand eggs.

Trichinæ are generally found encysted in the hog, each cyst containing one, sometimes two, rarely three young trichinæ. It is in this condition they are taken into the stomach, where a few hours afterward the sexual organs are developed, their young set free, which in their turn commence a career of activity so great that in a very few days they may be found infesting nearly all, if not all, the striated muscles.

The time intervening between a repast of trichinous food and the onset of this disease is generally stated to be from forty-eight hours to one week; but among the cases that lately occurred at Aurora, Indiana, some persons were taken violently ill from seven to eight hours after eating, caused no doubt by the large quantity of trichinous food eaten.

Dalton says the young are not born until a week after they have passed into the stomach; but this length of time is too great for the hatching of the eggs and development of the young, as the facts in regard to the disease at Aurora proves; for some of the affected persons ate the trichinous meat at dinner, and were taken sick on the evening of the same day.

As the parent trichinæ are supposed to cause no trouble further than the production of their young, those cases mentioned above would show a rapidity in development truly astonishing, or else we are to suppose the parent trichinæ to be the immediate cause of the disease.

The numbers of these little parasites taken into the stomach during a full meal may be imagined when a single cubic inch of infected meat is supposed to contain over fifty thousand; and there is now in the writer's possession a specimen, taken from the muscle of the hog that caused such havoc in Aurora a few months since, though not larger than a mustard-seed before being flattened for examination, in which are thirty well-defined young trichinæ, one of the cysts contains the unusual number of three individuals. It is now conceded that they make their way into the muscles by vermicular motion only, and are not carried thither by the circulation, as was at one time supposed.

One peculiarity of the hog is that, though every cubic inch of its muscular system may be filled with thousands of these little worms, it will still present every appearance of health, and the flesh examined ever so closely with the unaided eye would be pronounced wholesome. It therefore follows that the only safeguard against the infection of trichina spiralis is a microscopic examination or the most thorough cooking of the suspected flesh.

How these little worms find their way into hogs is not positively known. When attention was first directed to the hog as the source of trichinosis in man it was supposed to become infected by eating rats; but this is very doubtful, as rats and hogs may both get them from the same source. I would also state in this connection that in the dissection and examination of five rats recently made, with no view of finding these parasites, I was surprised to find two of the rats filled with vast numbers of encysted trichinæ. The rats were all caught in the same locality. One of those infected was to all appearances perfectly healthy, the muscles being of good color and firm. The hair on the other was reversed and rough, and easily rubbed off; but whether this condition was caused by its being filled with these parasites I can not say.

One word regarding the course to be pursued in conducting an examination with the view of finding trichinæ in flesh. With a pair of scissors clip off a piece of the voluntary muscle about the size of a grain of wheat, or a little larger; add a drop of water to the specimen, cover with a thin glass, and by gentle pressure flatten it until it is not above one fiftieth of an inch in thickness; use now the microscope with a power not above seventy-five diameters; as low as fifty diameters is still better.

In most of the newspaper communications I have seen on the subject the writers speak of using "high powers," and then admit that they frequently fail to discover the worm; a result due in many instances perhaps not alone to the high power employed, but to the want of familiarity with the appearance of the parasites when observed under such powers.

LEXINGTON, KY.

Reviews.

A Hand-book of the Theory and Practice of Medicine. By FREDERICK T. ROBERTS, M. D., B. SC., M. R. C. P., Fellow of the University College, etc., etc. Philadelphia: Lindsay & Blakiston. 1874.

The title of this book implies that it was written chiefly for students, and the author states in his preface that such is the fact. Its first aim is to prepare students for passing an examination on the theory and practice of medicine; but besides this it seeks to put them in the best way of acquiring a knowledge of clinical medicine, and aspires also to instruct those who are already busily engaged in general practice.

The time is past when any thing but a compendium of practical medicine can be given in a single volume of even a thousand pages, but such works as the one before us must be prepared for those who can not take time to read more elaborate treatises. There must be hand-books for the student, and for the practitioner in seasons of emergency, when he must find in a limited space what he needs to know. We can not say that Dr. Roberts has produced the most satisfactory work of this sort that could have been written, but we believe that it is one which will prove to be well adapted to the class of readers for which it was prepared. It is necessarily unequal, for the obvious reason that it is impossible for any one to write with the same ability on every disease. Of some, as he is obliged to speak on the authority of others and not from his own experience, he must speak with a certain degree of vagueness and certainly with less confidence.

The author covers the whole field of practical medicine. A chapter is devoted to syphilis and another to diseases of the skin. Urinary calculus and gravel, abdominal aneurism, and mediastinal tumors form the subjects of other chapters. In this, it occurs to us, he has attempted too much in the limits to which he confined his treatise. He would have made it more satisfactory if he had left some of these affections to the surgeon, and devoted more space to miasmatic fevers and some other complaints of which he treats, certainly for his American readers, much too cursorily.

His second section, in which he considers the morbid conditions that pertain to general pathology, is one which may be studied to great advantage. Hyperæmia, dropsy, hemorrhage, inflammation, and fever are among the topics discussed, and in reference to the latter we can not pass by his remarks on the mode of diminishing temperature without a word of approbation. Cold is the chief means, as he properly states: "This acts partly by increasing the elimination by the skin, but also probably by checking destruction of tissue, or, as Dr. Beale thinks, by diminishing the growth of bioplasm." The most effectual mode is the bath, tepid at first, and gradually cooled by the addition of cold water or ice. The observations of Dr. Wilson Fox show that in cases of fever characterized by an excessive temperature the cold bath is the most efficient of all our remedies.

The following remarks on alcoholic stimulants in fever are judicious: "They are by no means always required, and their indiscriminate use may do a great deal of harm, but in a large number of cases they are very valuable. The essential value of alcohol consists not in its making up for food, which must be given at the same time, but in that it maintains the action of the heart while the system is struggling against the fever; hence the chief indication for its use is to be found in the condition of this organ, as shown by its impulse and sounds; by the state of the pulse, as regards its frequency, force, and amount of tone; and by the condition of the capillary circulation."

He remarks further on this subject that if alcohol is producing the desired effect, the tongue becomes moist and less furred, the skin perspires, the temperature is reduced, as well as the number of respirations, and the nervous system is calmed. If phenomena the opposite of these appear, the remedy is exerting a mischievous influence.

On the subject of contagion and epidemics Dr. Roberts offers nothing new, but his summary of the prevailing views in respect to them is satisfactory. Before proceeding to the consideration of continued fevers he devotes several pages to the thermometer, the use of which is now recognized as of so much importance in the study of acute diseases. Applying this instrument to the stages and progress of continued fevers, he remarks, "The value of the thermometer in prognosis requires particular notice. During the *second week* the temperature shows whether a case is going to be severe or not. In mild cases a marked morning remission occurs, which begins early and increases. The evening exacerbation is late, and soon there is a permanent fall; in short, the stage of defervescence sets in. In severe cases the opposite conditions are observed. The prognosis is unfavorable in proportion to the height of the temperature, and to the duration of this increased heat, with but slight morning remissions. A sudden rise or a rapid and extreme fall is a bad sign. Considerable interruption in the ordinary course of the temperature indicates the existence of complications. A marked fall often warns of the approach of intestinal hemorrhage."

Our author is in favor of revaccination after puberty, even where the first operation was satisfactory; and as to the validity of vaccination he says there can not be the slightest doubt in the mind of any unprejudiced observer. In a large proportion of cases, if thoroughly performed, and especially after revaccination, there is, he claims, "absolute and complete protection." And not only are the cases of small-pox that follow vaccination milder, but the effect of vaccination has evidently been to lessen the number of small-pox epidemics all over the world.

The affections of the stomach are disposed of in a little more than twenty pages, and cholera and dysentery are passed over in the same cursory style. The student will find in these chapters nothing beyond a mere outline of these matters. Diseases of the liver receive more attention. Fifty pages are taken up with their consideration, and yet the subjects are not treated exhaustively. In reference to treatment, where it is necessary to promote biliary secretion, he speaks of mercury as one of the chief cholagogues. Observation affords evidence, he says, notwithstanding the experiments recorded to the contrary, "that in certain morbid conditions, when the bile is deficient, the preparations of mercury do decidedly increase it."

A little more space is given to diseases of the urinary organs. On this subject, as well as on diseases of the liver, Dr. Roberts has afforded a good introduction to their study. After making himself acquainted with all that is here written, the student will be prepared to take up the monographs in which they are considered at length. For examination of the urine good instructions are given, and on all the points discussed the reader will find valuable information.

The exceedingly interesting class of diseases known as nervous engages about a hundred and twenty pages of the work, when volumes have been written about them. In regard to these diseases, as in other cases, a mere synopsis has been attempted; but the summary is judicious, and will be studied with profit.

The work concludes with an account of diseases of the skin, in which an outline of these troublesome affections is given. The author gives the treatment found most successful in these diseases.

This book appears under the best advantages of the typographic art. It is so printed that the reader will find with ease whatever matter he may be in search of, and added to all the rest it has a very full index. Take it altogether, while it is not equal to some other works on practice, we can recommend it to students as a capital text-book.

Transactions of the Kentucky State Medical Society.

Louisville: John P. Morton & Co. 1874.

This is the largest and a good deal the most elaborate volume of transactions yet issued by the Medical Society of Kentucky. So far as the work of the publishing committee is concerned, nothing has been left undone to render it complete. The volume of two hundred and sixty-two large octavo pages is neatly and accurately printed on tinted paper, and presents an attractive appearance. If a single typographical error be detected in it, the discovery will be by some reader accustomed to scrutinizing proof-sheets.

After the minutes of the meeting, which was held in Shelbyville in April last, the president's address comes first, as is usual in the transactions of such societies. Dr. Thompson prepared his address with great care, and it will be read with interest. It is eminently suggestive, touching upon epidemics, the duties of the profession, reports of committees, the woman movement, specialties, the registration law, and skepticism, and giving short obituary notices of Dr. Humphrey, Dr. Bayless, and Dr. Miller, who have died since the meeting of the society in 1873, and paying an elaborate tribute to Dr. Ephraim McDowell, in connection with the monument proposed to his memory. In conclusion Dr. Thompson "earnestly invites every Kentucky doctor to go with us in our determination to foster this society, and, following the example of our worthy predecessors, strive to promote the welfare of our noble profession."

The second is an exhaustive paper on fibroid tumors of the uterus, by Ely McClellan, M. D. We do not see how the author could have said more in the same space, or said it better than he has done in this report; and we should say the same of the report on surgery, by R. F. Logan, M. D. Both these are excellent papers. In Dr. Logan's the word ten was mistaken for two by the printer, and he is made to say that "acupressure was brought into notice about *two* years ago," instead of ten.

The admirable paper of Dr. Lewis Rogers, on Climate in Pulmonary Consumption and California as a Health-resort, which has already been given to our readers, follows the report on surgery. To this succeeds an excellent summary of the facts in cerebro-spinal meningitis, reported by E. S. Gaillard, M. D. Dr. Andrew McFarland, who was present at the meeting as a delegate from the Medical Society of Illinois, is author of the next paper, bearing the somewhat singular title of "Medical Border-land." This border-land is the field "trodden by both the pathologist and the psychopathist." The paper treats of what has often been styled moral medicine, and treats the subject in a way that will insure its perusal. The study of the influence of body on mind is one of the most interesting in the whole range of medicine.

The next article is one which has already been presented to our readers—an abstract of six cases of ovariotomy, by D. W. Yandell, M. D.; and this is followed by the report of the indefatigable chairman of the Committee on Registration, S. A. Foss, M. D.; on which we remark that if this most important object is not carried out in Kentucky, it will not be the fault of Dr. Foss. The zeal and fidelity with which he has devoted himself to this laudable work ought to insure its success. We believe Dr. Foss will yet triumph over all the inertia by which his scheme has hitherto been retarded. He merits the thanks of the profession of the state. To this report succeeds one on diseases of the conjunctiva, by Dudley S. Reynolds, M. D., evincing great learning as well as very thorough experience in the affections of which it treats; and this is followed by one on a subject of the deepest interest to the profession—the summer complaints of children. The writer of this paper is J. A. Larrabee, M. D., recording secretary of the society, who brings his own experience as well as much reading to bear upon the subject.

A short paper by R. H. Gale, M. D., on calculus in the female bladder, giving the history of two interesting cases, makes the next report. A report on albuminuria, by Wm. Bailey, M. D., succeeds, presenting a condensed view of the researches made in modern times respecting the pathology of the kidneys. The "Therapeutic Properties and Uses of Oxygen Gas," by Frank C. Wilson, visiting physician to the Louisville City Hospital, is the title of the next report, in which the reader will find an able presentation of the subject. This is followed by an elaborate paper on the pathology and treatment of glaucoma, by C. S. Fenner, M. D., which is the last report of a strictly medical character in the volume.

The three concluding articles are by Dr. E. Richardson, Dr. J. J. Speed, and Dr. L. P. Yandell. The first of these is a lively paper on homeopathy, in which Dr. R. shows himself a satirist, a scholar, and a logician. But unfortunately his logic and satire will meet the eyes of few who are not already converted to his opinions. The deluded masses never listen to what science and common-sense teach about quackery. Dr. Speed discusses the question, "Has Medicine as a Science advanced?" in a carefully-prepared paper of twenty-one pages. It is a paper which will be read with quite as much interest by the general as by the professional reader, and was evidently written for popular instruction. While many of his brethren may not agree with him in all his positions, all will rise from the perusal of his scholarly paper with great respect for his candor and judgment.

The closing article, by Dr. Yandell, is a report on the medical literature of Kentucky. It takes up just fifty pages in the volume of transactions, but makes little more than an introduction to the subject. The report, to do justice to the medical literature of Kentucky, will require a volume of four or five hundred pages. Much more of the report was presented to the society than the publishing committee were able, with the funds in their hands, to issue in the present volume. If the profession show an interest in the work, it will doubtless be prosecuted to completion.

The fault in this volume which is likely to strike critical readers is the want of freshness in its matter. Too many of the reports are mere summaries of what is diffused through books accessible to most medical readers. The number of original contributions to medicine bears too small a proportion to these summaries; but, take it altogether, it is a volume which, we believe, will meet with favor; and the committee of publication, which has brought it out in so creditable a dress, deserves the thanks of the society. The committee have left a number of copies of the Transactions for sale at the book-store of Messrs. J. P. Morton & Co. It can hardly be doubted that many physicians in Kentucky not members of the society will be desirous of procuring a copy of the work. The members will be supplied by mail on application to the secretary, Dr. J. A. Larrabee.

La Temperance. Bulletin de la Société Française de Tempérance Association contre l'Abus des Boissons Alcooliques. Année, 1874. No. 1.

This is a quarterly issued in Paris, and contains upward of one hundred pages. Physicians knowing better than any other class of society the impairment of health, the production of numerous diseases, and the shortening of human life, with the transmission to their offspring of unhealthy organizations arising from the abuse of alcoholic beverages by parents, can not be indifferent spectators to any judicious efforts to subdue this mighty evil. We owe no apology to our readers therefore for calling their attention to the publication above mentioned, and to the society of which it is the organ.

And first of the latter. In reading the list of members of this temperance organization one is struck with finding so large a number of members of our profession, many of them men of great eminence; for among bankers, lawyers, litterateurs (Guizot one of these), legislators, and church dignitaries we find names familiar to doctors every where—Béhier, Claude Bernard, Bernutz, Bouchardat, Broca, Demarquay, Dechambre, Depaul, Desormeaux, Dolbeau, Fauvel, Fournier, Gosselin, Gubler, Lunier,* Richet, Ricord, Marc Sée, Tardieu, Verneuil, Voisin, and Wurtz—these, and others almost equally as well known, make an array of medical adherents to this organization probably unequaled by any similar organization in the world.

The object of the association is stated thus, to combat the incessant progress and disastrous effects of drunkenness; and for the accomplishment of its end it proposes employing all the means which experience shall suggest. Among these will be conferences upon the dangers of intemperance; encouragements of the publication of similar books, pamphlets, etc., by co-operative societies; especially the substitution for alcoholic liquors of healthful drinks,† such as natural wines, cider, coffee, tea, and beer; the formation of clubs where laborers and members may find proper and useful diversions, and from which spirituous liquors are excluded; to give rewards to teachers, foremen, overseers, laborers, servants, and others who are active in promoting temperance; to increase the tax upon alcoholic liquors, and so far as possible remove it from other drinks; to seek the institution of new measures against drunkenness, especially the diminution of the places for the sale of these liquors, and strict regulation of all licenses to sell; the publication of a bulletin of the proceedings of the society, and in which also will be treated all questions relating to alcoholism.

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* Dr. Lunier is the permanent secretary.

† Our American "crusaders" would be horrified at some of the drinks considered "healthful."

An associate member pledges himself not to commit any act of intemperance, and to neglect nothing that may prevent the abuse of alcoholic drinks. Should he be found drunk, he loses his membership, and can not regain it until after two years of strict temperance.

The first article in *La Tempérance* is by Dr. Lunier, and is the first of a series upon the production and consumption of alcoholic liquors in France, and their influence upon the physical and intellectual health of the people. Dr. Foville is the author of the second article, which is upon the license system of Gottenburg; while following it is one upon Swiss legislation in reference to alcoholic drinks. Then we have the proceedings of the society at different sessions, French legislative action, and English, German, and American "documents;" the latter being merely a history of the women's crusade, which in less than six months seems to have died out even in Ohio, where it originated and where its most energetic work was done. Subsequently the subjects, seven in number, proposed by the society for prizes are given, these prizes being each one thousand francs, or two hundred dollars, and various items of news, among which are the pouring into the Seine, by judicial authority, of three hundred puncheons of adulterated wines; the adulterations being water, carmine, cochineal, logwood, alum, aniline, fuchsine, etc.; and the action of the chief of police in Saint Petersburg closing up without notice two thousand of the twenty-seven thousand drinking-places which that city is blessed with, and when the proprietors threatened complaint they were ordered to leave Saint Petersburg in twenty-four hours.

We shall watch with great interest the labors of this society, ardently trusting that they may demonstrate a successful way of materially lessening one of the monster evils of the age. T. P.

Materia Medica for the Use of Students. By J. B. Biddle, M. D., Professor of Materia Medica and General Therapeutics in the Jefferson Medical College, Member of the American Philosophical Society, Fellow of the College of Physicians, etc. Sixth edition, revised and enlarged, with illustrations. Philadelphia: Lindsay & Blakiston. 1874.

This the sixth edition of Prof. Biddle's most popular work has, we are told in the preface, been prepared with unusual care; the therapeutical articles recast and often rewritten, the chemical descriptions remodeled, and the new method of chemical notation adopted. As a text-book in materia medica, for students in this country at least, it has no superior.

The Virginia Medical Monthly. Edited by L. B. Edwards, M. D., etc. Richmond.

This is a new candidate for popular favor, projected at Richmond, Va., which ought to command success. In the first place, Virginia is entitled to a journal of medicine; and in the second place, this evinces an industry and taste on the part of the editor which commends it most favorably to the profession every where. It is evident that Dr. Edwards enters upon the work before him with a zeal and a hopefulness which go far toward insuring the success of such an enterprise. His first number is uncommonly varied in its contents, and contains an amount of medical news which will make its readers look with interest for future numbers. The subscription is two dollars per annum, payable in advance.

The Ligation of Arteries. Translated from the French of L. H. Farrabeuf, M. D., etc., by John D. Jackson, M. D. Philadelphia: Lippincott & Co. 1874.

A standard work of convenient size, exceptionally well translated, beautifully illustrated, and published in the very best style of the Lippincotts, it must soon find its way to the tables of all who are interested in the subject of which it treats.

Clinic of the Month.

On the Use of the Perchloride of Iron in Post-partum Hemorrhage.—Dr. Lombe Atthill, of Dublin, in an exceedingly valuable paper on this subject recently read before the Dublin Obstetrical Society, first asks the following questions:

1. Do cases of post-partum hemorrhage occur which we have reason to believe would terminate fatally, or at least in which life is seriously endangered, notwithstanding the judicious use of the remedies ordinarily employed for the arrest of hemorrhage?

2. Is the injection of a solution of the perchloride of iron of itself a dangerous remedy?

3. If so, are the dangers likely to follow its use such as to outweigh its obvious advantages as an agent capable of effecting with almost certainty the further loss of blood?

In order to aid in some degree in the elucidation of these most important questions, he details the particulars of the cases in which the solution of the perchloride of iron has been injected into the uterus for the arrest of post-partum hemorrhage in his private practice, and that some practical inferences may be deduced on which sound rules for future practice may be based.

He assumes as proved that the perchloride of iron applied to the interior of the womb is an efficient hemostatic.

He thinks the first of the three questions he has put down for discussion will be answered in the affirmative all but unanimously. Dr. Barnes and Dr. Gream state that they have "never seen a woman die from post-partum hemorrhage when under their own care from first to last." Dr. A.'s practice has not been equally successful, he having lost at least one patient of post-partum hemorrhage whose bedside he never left from the termination of the first stage of labor till death ensued, and whose labor up to the occurrence of the hemorrhage, which did not set in till after the expulsion of the placenta, was in all respects easy and natural. In her case he exhausted all the ordinary methods employed for the arrest of hemorrhage, but the patient died before his eyes. "I admit, however," he says, "that I did not rely on the use of brandy to the extent recommended by Dr. Gream. I gave it freely, both by the mouth and by the rectum. No doubt Dr. Gream would say the fatal result followed simply because 'I did not give enough.' But if I did not give it by the half pint, I gave it by the ounce; and the large doses of alcohol I did give were nearly useless, because they were rejected as fast as swallowed. Moreover, I regret to say, I did not inject the perchloride of iron. It was the first case of severe hemorrhage which occurred in my practice after that method had been brought under my notice by Dr. Barnes; and, like many of my brethren nowadays, I feared to use this to me new and powerful remedy. I now firmly believe that to this timidity the death of my patient, a young wife and a young mother, was due. I feel that she might still be alive if only I had used a remedy I knew of, but had not courage to employ. This, however, I have to compensate me, that though since then I have stood beside the bed of more than one whose life seemed to me in greater peril than hers to whom I have just alluded, no such scene as that I then witnessed followed, nor do I believe it ever will again. The lesson I that day learned taught me the utter inutility of the 'ordinary means at our command' for the arrest of post-partum hemorrhage in a certain class of cases."

In addition to the cases occurring in his own practice he adds, "I have seen the perchloride of iron used in other cases, and, so far as I am aware, no unfavorable symptom subsequently occurred in any of them.

"*Case I.*—The labor terminated rapidly in the birth of a dead child. Slight hemorrhage continued during the progress of the labor, which terminated under the sole charge of the nurse tender. The placenta was expelled almost immediately on the birth of the child. The hemorrhage, however, continued, and the husband, becoming alarmed, sent for me. I was from home, and the messenger proceeded to Dr. Kidd's. He has given me the following note of the case: 'When I arrived I found the lady in a state of extreme prostration; the surface was cold; she was almost pulseless, throwing her arms about, and begging to be allowed to sit up and get air. A skillful nurse was holding the uterus. For some time after my arrival I took charge of the uterus myself, and found, as the nurse had said, that the moment the pressure was removed the uterus relaxed and the bleeding returned. It was evident she could not bear the loss of more blood, and that there was no time to be lost, so I proceeded to inject the solution of the perchloride of iron as directed by Barnes. This at once checked the bleeding; the uterus contracted and remained firm. I applied a bandage, gave brandy and opium, got hot jars and flannels to the surface, and watched her closely till reaction was fully established. By this time you had arrived and took further charge of the case.'

"The condition of the patient when I saw her fully confirmed the account given by Dr. Kidd; reaction was established, but the patient was still in a most precarious condition. She was greatly exhausted, the exhaustion being kept up by incessant vomiting, which had set in immediately after the birth of the child, and which, notwithstanding the arrest of the hemorrhage, continued with unabated violence. Brandy, opium, ice—all were tried, and all failed to check this at first distressing but now alarming symptom. Tinct. opii injected into the rectum was equally inefficacious. At last I thought of trying the hypodermic injection of morphia, a remedy I had at that time but little experience of. I injected half a grain of the acetate of morphia. This had an instantaneous effect; she did not vomit once afterward, and from that moment improved and made a good recovery.

"*Case II.*—The labor was of but four hours' duration. The placenta was expelled in about fifteen minutes after the birth of the child. During this interval I kept my hand constantly on the fundus of the uterus; it contracted firmly, and I applied a binder. Shortly after a small stream of blood was observed to trickle down from the vagina. On loosening the binder I found that the uterus had become relaxed. The application of my hand caused it to contract immediately, and some clots were expelled. This alternate contraction and subsequent relaxation of the uterus, so often seen in the case of women with relaxed muscular tissue, was repeated several times. The total quantity of blood lost was not large, but it told greatly on this delicate and fragile lady. Cold judiciously applied, ergot, friction, etc., failed to produce more than temporary contraction of the uterus. The fatal case of post-partum hemorrhage I have already alluded to was fresh in my memory; it had occurred in my own practice and in a very similar patient but a few months before. The successful result of the case just detailed had lessened, if it had not altogether removed, my dread of the action of the perchloride of iron. My patient was in a critical state; indeed, to one in her state of health, of great danger. I resolved to use the perchloride of iron, and accordingly injected about an ounce of the liquor of the perchloride of iron, B. P., diluted by the addition of three ounces of water, into the uterus. The effect was instantaneous; the uterus contracted much more firmly than before, and *did not again relax*. Not a drop of blood was subsequently lost. This lady recovered without a bad symptom, and has been confined twice since.

"*Case III.*—Immediately after the birth of the child some hemorrhage occurred, and I removed the placenta by pressure. Its expulsion was followed by the most copious and alarming hemorrhage I ever witnessed. The blood gushed out in such a copious stream that the bed was saturated and the floor deluged with it in a shorter space of time than it has taken me to pen these lines. My hand all this time was on the uterus. In a few minutes life seemed extinct in this previously debilitated and exhausted woman. As rapidly as I could, and without having recourse to any of 'the ordinary means,' I injected some ounces of a diluted solution of the perchloride of iron. It acted at once; the hemorrhage was arrested, and my patient slowly revived. On the third day she was wonderfully well, and continued so to improve until the tenth day. Then she had a rigor, the pulse rose rapidly to 160 in the minute, well-marked symptoms of peritonitis subsequently set in, and she died on the fifteenth day after delivery.

"*Case IV.*—After the expulsion of the placenta hemorrhage set in, as in Case II. Notwithstanding the use of 'the ordinary means,' the hemorrhage continued. The uterus would contract, but not firmly, and a constant stream of blood trickled from the vagina. The patient was greatly exhausted, and became very faint. I injected, as in Case II, about four ounces of the solution of the perchloride of iron, in the proportion of two parts of water to one of the liquor. The uterus instantly contracted firmly, and no more blood was lost. This patient, considering her constitutional delicacy, made a good recovery, and became pregnant again early in last year. Her labor on this occasion forms

"*Case V.*—Labor set in soon after midnight. The first stage was very tedious, and occupied upward of twenty hours. So utterly inefficient were the pains that I formed the opinion that the uterus opened by a process of mere relaxation, no appreciable pressure being brought to bear on it by the uterine contractions. As soon as the os uteri was fully dilated I ruptured the membranes and commenced the administration of ergot, not with the view of hastening the labor, but of preventing the occurrence of post-partum hemorrhage. The drug was, however, vomited. The head did not enter the brim; it appeared simply to rest on it, the short, inefficient pains being altogether powerless to cause its advance. I therefore applied the long forceps. This was effected with ease. I extracted very slowly. The operation occupied on this account nearly forty minutes. The pelvis was roomy and the child small; no difficulty therefore was experienced in extracting the child, which, though very feeble, ultimately lived. The uterus, somewhat to my surprise, contracted well. Mindful of the tendency to post-partum hemorrhage exhibited after her former labor, I had before I applied the forceps not only administered ergot in combination with strychnia, but had in readiness, in addition to cold water, etc., a vessel containing two ounces of the liquor of the perchloride of iron diluted with four of water; but my precautions seemed needless. The placenta was in due time detached and expelled with the aid of gentle pressure applied to the fundus. After its expulsion I still continued for some time to keep up pressure with my left hand on the uterus. As it continued firmly contracted, I then applied the binder, with pads under it, firmly. All seemed so well I thought I might soon with safety leave my patient, when after the lapse of more than half an hour she began again to vomit; a copious stream of blood instantly issued from the vagina, and before I could unpin the binder the uterus was so relaxed as to reach above the umbilicus. The pressure I applied seemed only to increase the flow of blood without exciting any contraction. In five minutes my patient was almost pulseless. This seemed to my mind one of those desperate cases in which I dared not lose time by the employment of what I was satisfied in her case would prove to be inefficient remedies. I therefore at once injected about four ounces of the solution I had fortunately previously prepared. The hemorrhage was at once arrested, the uterus contracted, but so nearly had life been extinguished that two hours elapsed before the pulse returned with any degree of firmness to the wrist, or that I dared to leave the bedside of this patient; and so great was the subsequent prostration that for two days she lay in a state of semi-unconsciousness. She swallowed mechanically beef-tea, brandy, etc., when placed to her lips, but never spoke except when roused. The urine was drawn off with the catheter, the bowels did not move, there was not any attempt at the secretion of milk. Her condition, however, slowly improved, no bad symptoms occurred, and she regained in time her usual health.

"The foregoing five cases occurred in my private practice, and I had an opportunity of judging not only of the previous state of health, but of tracing the subsequent history of each patient. I desire to comment on some points which appear to me of importance, and as calculated to guide us: first, as to the class of cases in which the injection of a styptic into the uterus for the arrest of post-partum hemorrhage is likely to be most useful; and secondly, as to its subsequent effect on the patient.

"1. It is noteworthy that the only cases which seemed in my practice to demand this treatment were women in a previously bad state of health. Case I was that of a lady who not only suffered from sickness to an excessive degree during pregnancy, but who for a long time previous to and of course also during her pregnancy consumed almost no food, and what she did take was of an improper character. Case II was markedly anæmic. Case III was in such bad health as to cause much alarm to her friends on this account prior to labor. Cases IV and V were the same patient. She too was on both occasions in a very bad state of health; so bad indeed that the induction of premature labor seemed more than once demanded. In all it may be fairly assumed that the blood was in an abnormal condition, probably destitute of its proper proportion of fibrine. This seems specially likely to have been so in Case II, in which, though the uterus contracted fairly, the hemorrhage continued.

"2. As to the results, in three of the four patients pregnancy subsequently ensued. This fact proves clearly that the injection of perchloride of iron in no way injured the uterus.

"In four of these five cases, notwithstanding previous bad health and the great loss of blood sustained at the time, no unpleasant symptoms of any kind subsequently presented themselves. In one case death ensued. Taking into account her previous ill health and the acknowledged tendency which always exists to the occurrence of peritonitis after excessive losses of blood, it hardly seems a reasonable inference that in her case death was due to the effects of the injection of the styptic. The society have, however, before them all the facts which I am possessed of, for no post-mortem examination was possible. My own opinion is that this patient would probably have died whether the perchloride had been injected or not. Pyæmia, phlebitis, and peritonitis have, as is well known, carried off numbers of patients who have suffered from post-partum hemorrhage long before the injection of a styptic for its arrest was proposed, the debility resulting from the loss favoring the occurrence of these forms of disease; and in the case of the patient under consideration the state of her health previous to labor aggravated the danger to which all cases of hemorrhage are liable. But even were it proved that her death was the result of the use of the perchloride, a further question has yet to be decided, namely this: believing as I did, and still do, that this patient would have died from hemorrhage, and that in a few minutes, was I justified in using an agent which alone, in my opinion, was capable of saving her life, supposing it to be proved that in a certain proportion of cases the use of that remedy would be followed by fatal results?

"This question seems to me to be identical with that which is involved in deciding on all capital operations, notoriously in that of ovariotomy, and that it must be decided on the same principles. I shall not therefore discuss it further. For myself I have arrived at the following conclusions:

"1. That cases of post-partum hemorrhage occur in which the injection of the perchloride of iron or some similar styptic is alone capable of arresting the hemorrhage.

"2. That the injection of such styptic does not necessarily increase the tendency which exists in such cases to the occurrence of pyæmia, septicæmia, or peritonitis.

"3. That this treatment is specially applicable to anæmic patients.

"4. That while it should never be had recourse to unnecessarily, it should not, on the other hand, be delayed too long.

"I may add that in using the solution of the perchloride of iron I carry out in the main the directions given by Dr. Barnes. I have not, however, in any case injected more than six or eight ounces, sometimes as little as four ounces of the fluid. I also use it somewhat stronger than he does; namely, in the proportion of one part of the strong liquor, B. P., to two of water. The important point in using it is to take care that the end of the tube is passed up to the fundus of the uterus, and that the fluid be injected slowly. I should add that I have not met with any case in which the uterus did not immediately contract firmly on the perchloride being injected. I am inclined to attribute this to the fact that I had recourse to the remedy before the powers of the patient were so exhausted as to render the uterus incapable of responding to the stimulus.

"Before concluding this paper I desire to say a few words as to what are "the ordinary means" employed for the arrest of post-partum hemorrhage. They are the administration of ergot, pressure and friction on the fundus of the uterus, and the application of cold. These, with the addition of the free exhibition of brandy or other stimulant, may, I think, be considered the means ordinarily had recourse to by practitioners.

"As to ergot, it is a most uncertain agent; and while most useful if administered some time before the occurrence of the hemorrhage, is, in my opinion, seldom of much value if given after it has set in. Ergot takes at least twenty minutes to act, and besides is often in these cases vomited. Injected hypodermically it is, I believe, capable of doing much good, but its irritating properties when thus used render this method of employing it not altogether unobjectionable. I am at the present time engaged in endeavoring to obtain an efficient and at the same time unirritating preparation of this drug for hypodermic injection. As yet I have been unable to obtain any definite results.

"The value of pressure on the fundus, if it be judiciously applied, can hardly be overestimated; but the most carefully-applied pressure, or pressure combined with friction, will at times fail to check the flow; in spite of all the bleeding will go on.

"Cold, one of the most potent means at our command for stimulating the uterus to contract, is frequently useless; nay, more, often positively injurious in consequence of its being improperly used. To do good it must cause a shock. It must therefore be applied suddenly while the patient is warm. Its application should never be unduly prolonged; for if once the temperature of the body be so reduced that cold, no matter how applied, fail to produce reaction, the uterus will not contract, and the hemorrhage will be in no way checked. Therefore, while I am not prepared to say that cold water should never be poured from a height on the patient, I decidedly object to such a practice, for it necessitates the exposure of a large surface of the body, and the saturating and therefore changing of the bedding. Injecting cold water into the rectum is generally a safe and often an efficient method of employing cold, but to be of use it requires to be done before the patient has become exhausted. Injecting water into the uterus is, I believe, on the contrary, by no means a safe practice. The advocates of this practice tell us that 'the injection (of cold water) should be continued till the fluid returns clear.' This procedure is, in my opinion, far from being free from danger. I believe it to be quite as likely to be followed by serious consequences as the injection of the solution of the perchloride of iron, while it is far less efficacious. If had recourse to at all, it should be done early, and the quantity injected should be but small. Cold water should never be injected into the uterus of a patient exhausted by excessive loss of blood.

"Ice introduced into the uterus or rectum will, if the patient be not too much exhausted, cause the uterus to contract. But how seldom is it possible to obtain ice at the moment; and, if attainable at all, much time must generally elapse before it is at hand, and then it is in general too late to be of real good; for, as in the case of the injection of cold water, to be of use it should be used promptly. If it does not succeed at once, its further use can only be productive of mischief. It therefore can not for many reasons be relied on as an efficient agent for the checking of post-partum hemorrhage.

"Of the other means advocated for this purpose, and which can not be classed among the 'usual ones,' the introduction of the hand into the uterus is that which is most frequently advocated. There can be no doubt but that in some cases this treatment has proved efficacious. On the other hand it certainly can not be relied on. Thus, to quote a reliable authority, Drs. Hardy and McClintock give the particulars of a case which proved fatal from the loss of blood, and in which the hand had been introduced into the uterus. The recorded cases in which this plan has been adopted are so few, and the termination of the case, even when the hemorrhage has been checked, so uncertain, that no positive inference as to its value can be drawn. But for myself, I have always looked on the method as one not free from danger. The introduction of the hand into the uterus is far from being a perfectly harmless operation. In this opinion I am borne out by the fact recorded by Drs. Hardy and McClintock that Dr. Chas. Johnson, the then master of the Lying-in Hospital, looked on this practice with great disfavor; and Dr. Johnson's opinion carries great weight, at least with such of us as remember that able practitioner and accurate observer.

"My object in making these concluding remarks has simply been to show that the means at our disposal for the arrest of post-partum hemorrhage are far from being reliable, and of what importance it is to add to their number one so powerful as the injection of a styptic solution."

In the discussion which followed Dr. Atthill's paper Dr. McClintock said that although the subject of the use of the perchloride of iron in the treatment of post-partum hemorrhage had come under the notice of the society in a paper read about four years ago by Dr. Roe, still it did not attract the full attention and discussion which the importance of the question demanded; nor had the subject then attained the great proportions which it now assumed, when, so far as regards obstetric practice, it might be looked upon as the prominent subject of the day. He believed Dr. Barnes had not said too much for the use of the perchloride of iron when he called it a 'new power' placed in the hands of the obstetrician for the arrest of post-partum hemorrhage. They already possessed three or four powerful remedies for the suppression of uterine hemorrhage. One was ergot, another was cold, and another was manipulation of the uterus, whether externally or internally. The last was a most powerful agency, and he thought the remedial value of this internal manipulation had been somewhat overlooked of late years. There was a fourth agent employed occasionally, very powerful and influential, but from its nature almost excluded from clinical use; viz., some form of electricity. With regard to the use of the perchloride there were three practical questions to be considered. One was its feasibility. Electricity was a very powerful agent no doubt, but in practice it was not feasible; for no man went to a midwifery case with an electric machine in his pocket, and if hemorrhage suddenly came on there would be no time to send for one. Now the use of the perchloride of iron was quite feasible; it occupied little or no space in the midwifery bag, and did not require any special instrument for its administration, which could be very easily effected. The next question was as to the *efficacy* of the perchloride in restraining the hemorrhage; and he thought there could be little doubt about its power to produce coagulation in the mouths of the vessels, and also to induce contraction of the womb, which was the great means whereby hemorrhage from the uterus was to be controlled. The third question concerned its safety. He agreed with what had fallen from Dr. Atthill and Dr. Ringland on this subject. It was very well known that women who had suffered a severe loss of blood in parturition were peculiarly exposed to some form of septicæmia or peritoneal inflammation. Now in those cases where there had been enormous flooding, if the use of perchloride of iron was followed by peritonitis, it would be hardly fair to set it down to the action of the styptic. The only case he knew where he thought that death could be fairly attributed to the use of the iron injection was one narrated before the Obstetrical Society of London, by Dr. Bantock, where the iron was used not to stop hemorrhage, but to prevent it. Its employment was immediately followed by most intense pain, which continued until the patient's death, a few hours afterward. It was possible that in this case some of the fluid had escaped into the peritoneal cavity. In the other cases, where the injection was followed by different forms of septicæmia, or inflammation, he did not think it fair to set it down exclusively to the iron. There had been a good deal of difference as to the strength of the solution used by Dr. Barnes and other practitioners. He (Dr. McClintock) used a solution of about the same degree of strength as the liquor ferri perchloridi of the pharmacopœia, which was a stronger solution than that usually employed. In Dr. Ringland's cases it was the solid perchloride that was used, carried by the hand into the cavity of the uterus, and rubbed over the bleeding surface. He (Dr. McClintock) did not think that these cases ought to be placed in the same category with those where the perchloride solution was simply injected into the uterus. It might be well contended that the arrest of the hemorrhage in Dr. Ringland's cases was due to the powerfully stimulating action of the hand on the uterus. The utility of the introduction of the hand into the uterus and the effect it was capable of exciting as a remedy for hemorrhage was too often forgotten. Dr. Collins, in his practical treatise on midwifery, had laid the greatest stress on its value as a mode of exciting uterine contraction in these cases of post-partum hemorrhage. With regard to the administration of the perchloride injection, he attached importance to two points; viz., to carry the point of the tube well up to the fundus of the uterus, and to have the uterine cavity as free from blood as possible, so as to insure the styptic fluid coming in contact with the interior surface of the organ. In his own practice he had employed this remedy in four cases; in three it was completely successful in stopping the hemorrhage, and in one it failed, though twice resorted to, and the lady died of hemorrhage. Symptoms of metro-peritonitis ensued in one of the cases, but yielded to the treatment employed, and the patient recovered. This was a case of placenta prævia, in which he had to deliver the child by turning; but the patient sustained an enormous loss before this was effected. The recurrence of hemorrhage after the extension of the placenta necessitated an immediate resort to the styptic injection; and its immediate good effects were very striking, though it was followed by very severe pain in the belly. In one of his cases the hemorrhage followed abortion about the fourth or fifth month, and could not be restrained by the most careful plugging of the vagina. Here also the perchloride injection was successfully used, and without any unpleasant effect. On several occasions, where much or prolonged bleeding followed upon miscarriage, he had found good results from mopping the interior of the uterus with the perchloride solution.

THE TREATMENT OF CHOREA.—Dr. Anstie, at the conclusion of a series of admirable papers (Practitioner) on chorea, says:

"I suppose that every one who has to deal very often with chorea goes through, at least once in his life, a period of utter nihilism, in which he can not believe that drugs have any real effect on the disease. And certainly a vast amount of positive assertion has been based solely on what was probably only coincidence; a fallacy which, when a student becomes aware of it, so disgusts him that he is very likely indeed to lose all faith in remedies from that moment.

"One broad assertion which is frequently made is that simple chorea always runs its own course in either four, six, or eight weeks, and then leaves spontaneously. No doubt it does so in very many cases, yet the longer one studies chorea the more one finds that there are many exceptions to this. Not to speak of the pretty frequent cases where chorea, interrupted for the moment by the onset of some acute disease, returns with double vigor and implants itself with double tenacity in the enfeebled organism of the convalescent patient, there is a far from inconsiderable number of simple cases of chorea which tend to drag on beyond that period of three months which, as Jaccoud justly observes, marks the limit at which chorea passes into the intractable type. I have become convinced that there are several means by which at least the disease can be kept to the shorter and more normal term; and, besides this, I do not doubt that we can sometimes intervene in the terrible acute cases, with the effect of saving life and preventing the patient from becoming imbecile or epileptic.

"In commencing the subject of treatment it is necessary to remark that if embolism be considered the probable cause of any given case of chorea, medicinal treatment must surely be vain. Tonics and cod-liver oil may possibly be of some use in improving nutrition, but we must necessarily wait for the removal of the disease by natural processes. When therefore a person who is notoriously suffering from valvular disease of the heart suddenly gets an attack of some kind, paralytic or epileptic, and thereupon passes into a state of chorea, there can be no sense in adopting any special plan of treatment beyond that already indicated.

"In the very numerous cases, however, in which there is neither rheumatism nor heart-disease present, we should be very foolish, in my opinion, to give up the attempt to interfere with the disease; and indeed the great discomfort which the patient suffers and the alarm which his friends experience will not allow us to fold our hands. I wish therefore to mention the few things which I have found really useful; and in the first place we will take the gravely threatening acute cases, such as those of the two children in the Belgrave Hospital, who have been already referred to. The boy, aged six, is a remarkable monument of what the organism will endure from physicians. We were determined to test the power of succus conii to the utmost, and commencing with six drachms daily we got up to *eight ounces daily of the succus*, without producing any more effect than as if so much water had been given. I wish particularly to mention that the preparation was got from three different and first-rate chemists in succession, so that there is no reason to believe that we were employing an inert specimen; indeed I believe our house-physician proved in himself the physiological activity of the sample, of which the patient took twenty-four ounces in three days. The same result happened with the girl who was under treatment at the same time; however, she never got beyond three ounces of the succus daily.

"In the excessively severe case of the boy we tried not only conium, but bromide of potassium, camphor, ol. morrhuæ, and zinc in large doses, all with only momentary effect. We then tried Jaccoud's plan, which I have found extraordinarily successful in several cases; viz., we sprayed the skin over the whole length of the spine with ether twice daily. I will not positively say that it was *propter hoc*, but I will say that immediately *post hoc* the symptoms greatly amended, and in the course of a fortnight the lad was perfectly free from movements. The girl, with whom succus conii, camphor, ol. morrhuæ, bromide of potassium, and large doses of zinc had entirely failed, began to improve immediately on taking liq. arsenicalis in five-minim doses, afterward reduced to three minims. I am convinced that in one of these cases death, and in the other a protracted and very serious illness were avoided by the use of remedies; and I will just say here that arsenic as an internal remedy and the ether spray applied to the spine have given me solid results such as have been obtained by no other remedy. The ether spray stands somewhat intermediate, I suppose, between the ordinary shower-bath and the spinal ice-bags, of which so much has been said. Cod-liver oil and iron, however, are very useful in anæmic and generally-debilitated subjects. And there is a special class of cases connected with violent ovarian excitement, or complicated with epileptic tendencies, in which the bromide of potassium is invaluable, and is the one remedy.

"In the terribly dangerous acute cases of young women, especially where there has been sexual excitement and exhaustion, I believe nothing does any good but free stimulation, regular feeding per rectum, and opium in large doses.

I regret to have to express my complete distrust in chloral and in a host of other remedies that have been proposed.

"In the milder stages, and especially with a view to the future bodily and mental health, there are a variety of precautions which ought to be adopted. Under these circumstances we often get the first considerable improvement by the use of the shower-bath. This old-fashioned and useful remedy is a two-edged weapon, and if employed in cases where the nervous system is too severely disordered and prostrated may produce bad results; but in the milder and more chronic type of chorea it is still worthy of being called a sheet-anchor. It gives that preliminary bracing to the nervous and moral tone without which we may fail to get a leverage for other treatment. There is no absolute necessity for beginning with cold water, and in delicate subjects it is better at first to use it tepid; but we can soon advance to the cold shower-bath daily or twice daily. The second item of treatment is the training of the muscular system. We can do much more good with this in most cases than with medicine, provided that the patient's nutrition is kept thoroughly good. This lesson has been particularly enforced by my colleague, Dr. Radcliffe, who always insisted much upon the value of muscular exercises which require rhythmical movements. He used, in Westminster Hospital, to give the choreic children skipping-rope exercise; and this will be found a very useful thing, either in the absence of means for more elaborate training or as introduction to more studied and complicated movements. I may conclude by pointing out the necessity for careful training in speech, where that faculty has been at all impaired, and also of attention to mental education in every case. The mere cessation of the choreic movements ought not to make us consider that we have done our work. It is most important that a judicious system of education should be at once adopted to strengthen the mind, and especially the memory. And although every care should be taken to avoid harsh or unkind treatment, it is very needful that a firm and regular discipline should be established; for any thing like slackness or vascillation on the part of the educator is sure to be reflected and exaggerated in the behavior of a nervously weak child."

TREATMENT OF THE ACUTE STATE OF BLENORRHAGIA WITH CANNABIS INDICA AND BENZOIC ACID. — Dr. Lamarre says *(Jour. des Connaissances Méd.)*, "During seven years I have in more than sixty cases employed cannabis indica and benzoic acid when patients have applied to me too late for the abortive method to be resorted to, when the discharge has been purulent and micturition painful, and have never failed of success when I have employed them together. The hasheesh alone diminishes the intensity of the disease, but is not always sufficient. Benzoic acid has made some cures and several half cures, but the two in combination have never failed. I advise the tincture of cannabis indica to be used in doses of two grammes, and the benzoic acid in doses of one gramme in a mucilaginous mixture, in twenty-four hours, the usual hygienic measures being followed. For two years I have also used with great success injections of simple water, made as often as possible (ten to fifteen times in twenty-four hours), and have always been able to commence with the balsamic and opium treatment within four days at the farthest."

HOSPITAL GANGRENE.—In the Charity Hospital, New York, two principal methods of treatment are resorted to. In one pure carbolic acid is applied thoroughly to the gangrenous surface. This is followed by a charcoal poultice, which is allowed to remain on for twenty-four hours, and after its removal the surface is cleaned of the sloughs and washed thoroughly. Pure acid is again applied. After the third application, if the progress of the disease has been stayed, the ordinary solution of carbolic acid is used. By the other method pure bromine is used instead of the carbolic acid, but the remainder of the treatment is the same. Conjoined with these local applications tonics and stimulants are used. If the patient suffers from pain, opium is administered. (New York Medical Journal.)

SWEET-OIL AS A DRESSING FOR WOUNDS.—Sweet-oil has been recently introduced at the Charity Hospital for the treatment of all kinds of wounds. It has several advantages over any other dressings in use, and apparently yields better results. The advantages are that it keeps the air from the wound, and at the same time is a grateful dressing to the patient. It also promotes healthy granulations. The mode of application varies with the variety of wounds for which it was intended. In necrosis, after the sequestrum is removed, the cavity is filled with the oil and a lint tent introduced. Every day the oil is renewed. In one case of necrosis of the lower jaw this procedure was had recourse to, and shortly after the patient was attacked with facial erysipelas; but, strange to say, the side of the face which had been operated on was not affected. In incised wounds the edges are brought together, and lint soaked in oil used as an internal dressing. *(Ibid.)*

USE OF PEPSIN IN THE TREATMENT OF DIPHTHERIA.—Dr. Doughly advises the following formula for softening and dissolving the false membranes of croup and diphtheria: pepsin, 6 grammes; dilute muriatic acid, 5 drops; distilled water, 100 grammes. To be used by inhalation, in the same way as lactic acid, as advised by Dr. Weber. *(Revista Clinica di Bologna.)*

Notes and Queries.

The First Ovariotomist.—Dr. L. P. Yandell, in his report on the Medical Literature of Kentucky to the State Medical Society, says:

"From all the evidence on the subject there can not be a doubt that the credit of introducing ovariotomy belongs to Dr. McDowell. But his priority in the operation was not the only point which has been in dispute respecting it. Dr. McDowell seems to have kept no notes of his cases. He was reluctant to publish a history of his operations, and when induced at last to draw up the meager account which was sent to the Eclectic Repertory he was obliged to rely upon "his ledger for his dates and his memory for the facts." It appeared an improbable story as it was carried abroad. Surgeons generally hesitated to accredit its truth. The quarter from which it proceeded was well calculated to create doubts as to its authenticity. The style in which it was related tended in no degree to allay incredulity. Dr. McDowell was not a clear, much less a scholarly, writer. His history was confused, if not contradictory. He spoke of his first patient as having come to his house to undergo the operation, and then of his visiting her a few days afterward. The critics, already inclined to disbelief, seized upon these apparent discrepancies to cast doubt upon the narrative. The comments of Dr. James Johnson, of the Medico-Chirurgical Review, expressed what no doubt was in the minds of most foreign readers, as well as of many readers at home, on the subject.

"Dr. Johnson says, 'Three cases of ovarian extirpation occurred, it would seem, some years ago in the practice of Dr. McDowell, of Kentucky, which were transmitted to the late John Bell, and fell into the hands of Mr. Lizars. We candidly confess that we are rather skeptical respecting these statements, and we are rather surprised that Mr. Lizars himself should put implicit credence in them. A woman, supposed to be parturient, was visited by Dr. McDowell, at the instigation of two physicians who considered her in the last stage of pregnancy. Dr. M. found the uterus unimpregnated, but a large tumor in the abdomen, movable from side to side. The woman traveled sixty miles on horseback to have an operation performed. Dr. Mac made an incision, nine inches in length, parallel with the rectis abdominis, and right into the abdominal cavity. The tumor appeared in view, but could not be removed. A ligature was thrown round the Fallopian tube, the tumor cut open (found to be the ovaria), and fifteen pints of dirty, gelatinous stuff extracted; "after which he cut through the Fallopian tube and extracted the sac, which weighed seven pounds and a half." As soon as the external opening was made the intestines rushed out upon the table, and they could not be replaced till after the operation was performed, which lasted twenty-five minutes! The wound was sewn up by means of the interrupted suture, assisted by means of adhesive plaster. Dr. Mac visited the patient *at the end of five days*, though she had come to his own residence to have the operation performed!! He found her engaged in making her bed! She soon returned to her native place quite well. *Credat Judæus, non ego.*'

"And no wonder; the story was so strange that not a few of our own physicians treated it as apochryphal.

"Dr. Johnson goes on further to say, 'The second case is little less extraordinary, if not incredible. A negress had a hard, fixed, painful tumor in the abdomen. Dr. Mac placed her on a table, laid the abdomen open, inserted his hand, and found the ovarium very much enlarged, painful to the touch, and firmly adhering to the bladder and fundus uteri. "To extract *this*" (two ovaria), he thought, "would be instantly fatal;" "but by way of *experiment*," says the doctor, "I plunged the scalpel into the diseased part, when some gelatinous substance, as in the above case, with a profusion of blood, rushed to the external opening, which I conveyed off by placing my hand under the tumor, suffering the discharge to run over it." A quart or more of blood escaped into the abdomen. The same dressings and the same success as in the first case. We can not bring ourselves to credit this statement.'

"Such incredulity, so bluntly expressed, had one happy effect—it compelled Dr. McDowell, in defense of his character for integrity as well as of his professional reputation, to report other cases of ovariotomy which he had performed, with fuller and more satisfactory details; and the editor of the Medico-Chirurgical Review, with true manliness, made honorable amends to the backwoods surgeon in the following terms: 'A back settlement of America—Kentucky—has beaten the mother-country—nay, Europe itself, with all the boasted surgeons thereof—in the fearful and formidable operation of gastrotomy with extraction of diseased ovaria. In the second volume of this series, page 216, we adverted to the cases of Dr. McDowell, of Kentucky, published by Mr. Lizars, of Edinburgh, and expressed ourselves as skeptical respecting their authenticity. Dr. Coates, however, has now given us much more cause for wonder at the success of Dr. McDowell; for it appears that out of five cases operated on in Kentucky by Dr. McDowell four recovered after the extraction and only one died. There were circumstances in the narratives of some of the first three cases that raised misgivings in our minds, for which uncharitableness we ask pardon of God and of Dr. McDowell, of Danville. The two additional cases now republished (for it appears that the cases were published, though in a very unsatisfactory form, in the American Eclectic Repertory) are equally wonderful as those with which our readers are already acquainted.' *

"Dr. Johnson has this concluding paragraph on the subject, which shows how hard it was for the editor to do full justice to the skill of the American surgeon: 'When we come to reflect,' he says, 'that all the women operated on in Kentucky, except one, were *negresses*, and that these people will bear cutting with nearly if not quite as much impunity as dogs or rabbits, our wonder is rather lessened, and so is our hope of rivaling Dr. McDowell on this side of the Atlantic.'"

THE FIRST SURGICAL OPERATION IN KENTUCKY.—The following account of the first surgical operation in the state we gather from the same author:

"In the Annals of the West, to which I am indebted for the foregoing particulars respecting the lives of Walker and Connolly, is contained the history of a surgical operation, probably the first ever performed by a white man in Kentucky; and, though it was not written by a surgeon, I can not help thinking that it is worthy of a place in our medical literature. The case was reported by Colonel James Smith, the subject of the operation, in a journal of his explorations in 1767, and is as follows:

"'About eight days after I left my company at the mouth of the Tennessee, on my journey eastward, I got a cane-stab in my foot, which occasioned my leg to swell, and I suffered much pain. I was now in a doleful situation; far from any of the human species, excepting black Jamie (his servant) and the savages, and I knew not when I might meet with them. My case appeared desperate, and I thought something must be done. All the surgical instruments I had were a knife, a moccasin-awl, and a pair of bullet-molds. With these I determined to draw the snag from my foot, if possible.

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* Medico-Chirurgical Review, October, 1826.

I stuck the awl in the skin, and with the knife I cut the flesh away from around the cane, and then commanded the mulatto fellow to catch it with the bullet-molds and pull it out, which he did. When I saw it, it seemed to be a shocking thing to be in a person's foot. It will therefore be supposed that I was very glad to have it out. The black fellow attended upon me, and obeyed my directions faithfully. I ordered him to search for Indian medicine, and told him to get me a quantity of bark from the root of a lynn-tree, which I made him beat on a stone with a tomahawk and boil it in a kettle, and with the ooze I bathed my foot and leg; what remained when I had finished bathing I boiled to a jelly and made poultices thereof. As I had no rags I made use of the green moss that grows upon logs, and wrapped it round with elm-bark. By this means, simple as it may seem, the swelling and inflammation in a great measure abated. As stormy weather appeared, I ordered Jamie to make us a shelter, which he did by erecting forks and poles, and covering them over with cane-tops, like a fodder-house. It was about one hundred yards from a large buffalo-road. As we were almost out of provisions, I commanded Jamie to take my gun, and I went along as well as I could, concealed myself near the road, and killed a buffalo. When this was done we jerked the lean and fried the tallow out of the fat meat, which we kept to stew with our jerk as we needed it.

"'I continued in this place till I could walk slowly without crutches. As I now lay near a great buffalo-road, I was afraid that the Indians might be passing that way and discover my fire-place; therefore I moved off some distance, where I remained until I killed an elk. As my foot was yet sore I concluded that I would stay here until it was healed, lest by traveling too soon it might again be inflamed.

"'In a few weeks after I proceeded on, and in October arrived in Carolina. I had now been eleven months in the wilderness, and during this time I had seen neither bread, money, women, nor spirituous liquors, and three months of which I saw none of the human species except Jamie.'"

ELECTRICITY IN HOOPING-COUGH.—Dr. John O'Reilly, on this subject, contributes the following:

"Since my report* on the use of electricity in cholera infantum I have been using the interrupted current in hooping-cough. The following cases will show that the improvement of the two patients to whom I applied it was due entirely to the faradization.

"June 30th I was called to see the children of Mr. B., one a boy about three and a half years old, the other a girl aged eighteen months. These children had contracted hooping-cough about two weeks previously. The disease progressed alike in both cases until it became so severe that medical attention was demanded. At the time I saw them they were coughing about twenty times in the twenty-four hours. The paroxysms were very severe at night, and so interfered with their sleep that they were being prostrated very fast. At my first visit I made a thorough application of the interrupted current to the pneumogastric of the baby, and ordered a Dover's powder at bed-time for each child. The reason why I did not apply the electricity to the boy was that he was sleeping soundly and I did not wish to wake him. The next morning I made another application to the baby, but again omitted it in the case of the boy, because he was again asleep. The mother told me that the baby was greatly improved, not coughing so often, and that when seized with a coughing fit the paroxysms did not complete themselves; in other words, that they did not continue until the child grew black in the face and seemed completely relaxed.

"I heard no more from these children for ten days, when the boy was brought to my office. His mother stated that the baby had continued to improve, not coughing more than five or six times in the twenty-four hours, and that the paroxysms were very mild. The boy in the mean time constantly grew worse. I at once faradized the pneumogastric. While applying the electricity a coughing spell came on. I did not cease its application, however, but watched to see how the paroxysm would progress under the influence of the current. To my great satisfaction the cough yielded to the electricity; for the paroxysm did not reach its climax, but ceased after the mildest coughing-spell. The face did not flush up and become purple; the little fellow did not gasp for breath after the attack; nor was he left, as usual, fatigued and bathed in perspiration. The next day I visited him, and found that after the application he had not coughed for nine hours. I made one more faradization, and left the patient without any other medication. To-day (16th of July) his mother reports that since the use of the electricity he has coughed but five or six times a day, and that the cough does not affect him more than that of an ordinary cold."

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*See American Practitioner for July, 1874.

MEMBRANOUS DYSMENORRHŒA?—Dr. ——, of ——, Ky., writes as follows in reference to a patient, and asks what treatment should be pursued: "A lady twenty years of age, married eighteen months, had no menstrual trouble before marriage, the flow lasting but three or four days; now has very profuse menstruation, the flow lasting twelve or fourteen days. A membrane 'the size of the thumb,' as she expresses it, is always discharged. Prior to marriage there was also a similar discharge, but only slight pain, and once it was thrown off she was quite well. Rest, cold applications, ergot, quinia, sulphuric acid, Indian hemp, cinnamon, and opium have all been given without any effect."

The doctor narrates a case of what will be at once regarded by most physicians as membranous dysmenorrhœa. Nevertheless let us look for a moment at some points in the differential diagnosis of the *decidua menstrualis* from the *decidua gravida*—distinguish membranous dysmenorrhœa from abortion in the earlier weeks. In this dysmenorrhœa the membrane is expelled at successive menstruations, these menstruations occurring regularly; while in abortion there has been amenorrhœa, and the discharge does not take place at a menstrual epoch—an abortion does not occur once a month. In abortion the os is open and hemorrhage generally precedes pain; in membranous dysmenorrhœa the os is generally closed, and pain precedes hemorrhage. The membrane of pregnancy is usually thicker than the other, complete in shape, generally ovoid, while the menstrual membrane is apt to be shreddy, or sometimes triangular in shape. The uterus in the subject of this dysmenorrhœa is often displaced, unusually sensitive, shows evidence of great general congestion or of inflammation of its lining membrane. These are among the means of diagnosis mentioned by Huchard* and Labadie-Lagrave.

Now what treatment will probably benefit the doctor's patient? The cure of membranous dysmenorrhœa has often baffled the most celebrated in our profession, and at any rate is not usually accomplished in any brief time.

First as to general treatment. If the patient be in average health, her blood not impoverished, give ten grains each of bromide of potash and of the muriate of ammonia four times a day; on the other hand, if necessary, give these with bitter tonics, etc. It would be well to enjoin entire abstinence from sexual intercourse for a few months. Locally, let free but gentle douches of the neck of the womb be made daily with a *warm* solution of chlorate of potash (one drachm of the salt to one pint of water). A few days after menstruation, if the uterus be not too sensitive, dilate the cervical canal with a sponge-tent, and then apply freely, with cotton upon a probe or "applicator" dipped in the solution, Churchill's tincture of iodine to the interior of the uterus, and also painting the neck with the tincture immediately after introducing into the upper part of the vagina a plug of cotton saturated with glycerine. Repeat the iodine application once in four or five days during the intra-menstrual period. Of course, if there be uterine displacement, let it be corrected; and whatever should tend to produce or continue pelvic congestion—such as constipation, hepatic disorder, etc.—should be removed.

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* *Archives Générales*, vol. ii, 1870.

The principles of treatment are to lessen uterine congestion, and to modify—change—the condition of its lining membrane by direct applications thereto. If iodine should not answer as a local means, carbolic-acid solution or nitrate of silver, etc., might be substituted for it. During the flow the most important remedies are rest and opium. T. P.

Obituary.—Died on the 20th of May, 1874, at Princeton, Ky., Dr. T. L. McNary, one of the oldest and most distinguished physicians of that portion of the state. At a meeting of the district medical society Dr. J. W. Thompson offered the following resolutions touching the event:

"*Resolved,* That after a long life of honor and usefulness Dr. McNary has been forced to lay aside those offices of mercy to which he has devoted himself for over half a century, and has gone to his reward in, we trust, another and a better land.

"*Resolved,* That we deeply lament the departure from our midst of this devoted servant of humanity, and we tender to his family, his friends, and the community in which he lately lived and 'acted well his part' the kindliest sympathies that his brethren of the profession can feel, and the most sincere respect for his honorable memory in the bright example he has left us all to follow."

"No man was more highly respected by his associates. For more than forty years he has been one of the leading physicians of Caldwell and surrounding counties, and possessed a zeal and devotion for his profession rarely surpassed. He honored the noble science of medicine, and did much to elevate its standard among his contemporaries.

"The people of Caldwell County have sustained a serious loss in his death. Many poor families have for years received his professional aid whenever required, and will now miss him, and his memory will ever be cherished by them for charity bestowed in time of affliction. He continued in active practice until his last illness, though nearly seventy years old, ever feeling desirous to do all in his power to alleviate human suffering. Not only did his people admire him for his medical attainments and professional devotion, but for his Christian example and moral influence. It can be truly said of Dr. McNary that he ever strove to do his duty as a man, a Christian, and a physician, and he leaves the memory of a good and noble life."

THE AMERICAN PRACTITIONER.

SEPTEMBER, 1874.

> Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Communications.

II. COMMON CARRIERS AS THE PORTERS OF DISEASE.

BY ELY M'CLELLAN, M. D.,
Assistant Surgeon U. S. A.

In a former paper[*] we attempted to demonstrate that railway lines were active agents in the dissemination of infectious diseases. The remarks in that paper referred chiefly to the transportation of individuals; but the same class of common carriers may become the porters of the latent germs of disease, which, being unwittingly transported from a distance, at their destination an appropriate nidus being found, a focus of disease is established. At the recent International Sanitary Conference it was unanimously affirmed that "cholera can be propagated by articles coming from an infected place which have been used by, and particularly which have belonged to, persons affected with cholera."

This opinion is based upon facts too absolute and numerous to admit of any other solution, and it may not be inappropriate to again refer to the experiments of Macnamara. This

[*] See August number of this journal.

observer took a quantity of fresh cholera dejections and mixed them with sand, which was then allowed to dry rapidly under a hot sun; the dried sand was then hermetically inclosed and placed in a secure position. After a lapse of seven years, during which time the vessel was undisturbed, a small quantity of this stuff was mixed with water and exposed to the sun, "*when it could not be distinguished from a fresh cholera stool.*"

De Boismont, in "The Analysis of the History of the Epidemic of Cholera in Poland in 1832," notes that many cases of cholera occurred among the Polish troops, who had worn the equipments of Russians captured in battle, cholera being at the time an epidemic in the Russian army; and Sir James Y. Simpson related the case of a young lady who, in 1832, was attacked with cholera after wearing a cap which had been worn by her aunt, who had died of the disease nearly a year before. This cap, until the day on which this young lady had worn it in sport, had never been taken from the box in which it was placed at its owner's death.

Similar instances might be narrated; but the fact that fabrics do become infected with contagious diseases is too well established to be controverted, and our attention should be directed to the agency which common carriers may exert, through such localization of infections, in the development of disease in healthy districts.

A man may die of cholera at a distance from his home. His attendants, being convinced of the non-contagiousness of the disease, pack into his trunk all his belongings and commit them to the care of a transportation company to be conveyed to his home. This home may be hundreds of miles away from any infected point, yet upon the arrival of that trunk, and upon the distribution of the articles therein contained, an outbreak of the disease results; and the observers, failing to detect the origin of the outbreak, announce *another development of cholera from local causes.*

In 1854 cholera was developed in the village of Ridgmont, county of Bedford, England, from a bundle of clothing of a man who had died of the disease in the city of London; and in the county, which had been free from the disease prior to the arrival of these articles of clothing, eleven fatal cases occurred.

In 1865 the post-office in the city of Marseilles, France, became infected with cholera, and, strangely enough, the disease was confined to the clerks who opened the mails from Alexandria, Egypt, the latter being an infected port.

In 1848 the ship New York left Havre, on the 9th day of November, with a large number of German emigrants, who were leaving an infected district. Ffteen days out from Havre the weather became very cold, and chests and trunks were opened for thicker clothing. Among others the clothing of a person who had died of cholera at his home was used by his brother, now on board of the New York. The next day this man was taken with cholera, and by the 26th of November five persons had died of the disease on shipboard, and twelve others were landed sick at the New York quarantine. This instance was almost duplicated in the case of the ship Swanton, that had left Havre for New Orleans ten days prior to the New York, carrying the same class of emigrants, who upon going into warmer latitudes went to their chests for lighter clothing, these chests not having been opened since they were packed in an infected district in Germany.

In 1832 a sailor died in Europe of cholera. His chest, which contained his clothing, was packed on shipboard on the coast of Norway, and sent to the family of the sailor in a small village in the state of Maine. Upon its arrival the chest was opened and examined. In a few days all the inmates of the house were taken with cholera, and several died.

Many such instances could be related. The history of the American epidemic of 1873 contains many such instances as striking and as well defined as those already presented. The facts are noted, and the agency of common carriers in the distribution of disease is demonstrated, although to them no shadow of blame can be attached; but the facts are strongly urged that sanitarians may be induced to inquire more closely into isolated and seemingly mysterious demonstrations of the disease, that, the cause being determined, the infection may be stamped out. Such instances of infection will occur until a sanitary surveillance is exercised by government authority in all infected districts.

The class of common carriers who next to railways are actively employed in the transportation of infectious diseases are vessels of all descriptions. It is not proposed to attempt any description of the transportation furnished diseases upon the high seas by the merchant marine or by war-vessels; the fact is patent to all observers; but a consideration of the ability possessed by the vessels of all classes that ply upon the western waters of America is earnestly asked.

Can diseases be conveyed from point to point by river-steamers, and do vessels of this class offer an asylum to contagion, which may unexpectedly be developed in unprepared communities?

The large steamboats that navigate the western waters most certainly must be held to a certain responsibility in the spread of contagious diseases. A superficial inspection will be all-sufficient to convince even the most skeptical.

These vessels, compelled from the necessity of the waters navigated to be of light draught, are built with broad, deep decks. The lower deck, which is the largest, is for the accommodation of the machinery, freight, crew, and deck-passengers; the second deck, the sides of the greater portion of which are lined with state-rooms, is for the use of cabin-passengers; and an upper deck, or "the texas," upon which is a row of state-rooms for the use of the boat's officers; the whole is surmounted by the pilot-house.

All the available space upon the lower deck is occupied during a trip by freight, which consists of merchandise of all classes. The provision-chests and ice-boxes of the boat are generally found upon this deck, and to it are confined the class known as deck-passengers and the crew. A deck-passenger is one who can not pay full fare, and in America at once indicates the individual as belonging to those classes of the community among whom infectious diseases find their most numerous victims. These persons are furnished with nothing but transportation. They sit during the day and sleep during the night in such positions as they may best secure; and this is generally found to be upon those piles of freight which will be for the longest time unmolested. In this they are but little better off than the crew, who when not at work occupy any place they may select.

It is among the deck-passengers of a river-steamer that infectious diseases, cholera especially, is conveyed from point to point. As the disease almost always occurs in a community unprepared for its advent, so it is upon these vessels. The disease may have been announced in cities or towns upon the route of the vessel, but it is not until the disease is absolutely fastened upon the boat that the officers are inclined to adopt any precautions. Thus it was in 1873. Boat after boat passed up the Mississippi and Ohio rivers from infected points, upon which cases of cholera occurred; but the existence of the disease was denied, and the sickness was attributed to green fruit and vegetables, or to cholera morbus, that useful scape-goat!

A deck-passenger taken with choleraic diarrhea uses the close and wet closet provided for his accommodation, and returns with soiled clothing to the pile of freight. The second stage of the disease occurs, and he vomits indiscriminately. The vomit and the involuntary dejections soak into the packages. The patient may advance to the stage of collapse, or the case may terminate fatally before attention is called to it. It is impossible to define to what extent articles of merchandise may become infected. Science has not yet defined the stage of the disease in which the excreta are most actively infectious, although it seems to be indicated that the excreta of cases in the stage of acute painless diarrhea and the dejections of those convalescent, or who have passed into the stage of typhoid, are absolutely more virulent in their infecting properties than those which are drenched with watery constituents; and the recent series of experiments at St. Petersburg show that the urine of individuals infected with cholera is capable of reproducing the disease.

The class of persons who are known as cabin-passengers are those whose systems are most generally in the condition to resist the invasion of the disease. The accommodations afforded them are ample for comfort. Every effort is made to secure cleanliness. The food furnished is good and well cooked. But among this class of individuals those who may have contracted the disease before starting on the journey, or who are infected with the disease at any stage of its progress, will inevitably carry the infection with them; and the articles of bed-furniture which have become soiled will when washed, the destination of the vessel being reached, affect the health not only of those who perform the work, but also that of the communities in which the workers reside. It is useless to contend that Cincinnati and other cities on the Ohio River were not in this way infected in 1873.

It is suggested as a remedy to the evils herein enumerated that, during any season in which cholera may have been declared epidemic in any portion of the United States, precautions be adopted upon all river-steamers to prevent deck-passengers and the crews of such vessels coming in contact with freight on said boats other than in the necessary handling; that a constant surveillance be kept upon the crew and deck-passengers, and every case of diarrhea promptly treated; that during any season in which cholera is epidemic each steamer carrying passengers be compelled to add a medical man to the officers of the boat; that he be absolute in all matters of sanitary importance; and that he be provided with all medical stores that may be required for the use of the sick.

LEBANON, KY.

A CASE OF BILATERAL FACIAL PARALYSIS DUE TO DOUBLE OTITIS.

BY RICHARD C. BRANDEIS, M. D.

Among the causes which may produce paralysis of the facial nerves there is one which is peculiar to this pair; namely, the local mechanical disturbances which the nerve may experience in its course from its origin to its exit from the cranium, owing to pathological changes which may take place in the bony canals through which it must pass.

Bérard, in an article on *Maladies de la Face* in the *Dictionnaire de Médicine*, and Deleau, in a memoir read before the French Academy of Medicine in 1857, as well as subsequent writers, have called attention to the fact that inflammation in the walls of the Fallopian canals or of the neurilemma of this portion of the facial nerve frequently produces facial paralysis. Deleau has demonstrated that inflammation of the aqueduct of Fallopius is almost always secondary to diseases of the middle ear, and that the impairment of hearing is due to the otitis, and not a sequel of the facial paralysis.

The case we are about to report is interesting, inasmuch as the paralysis was bilateral, and its course closely watched from the beginning.

John S., aged twenty years, employé of the Louisville & Nashville Railroad Company, first came to me with symptoms of pulmonary phthisis, which appeared to have made very rapid progress, as cough had been noticed but for four or five months. I placed him in the hands of a colleague. A few days after I was called to see the patient, who complained of a sudden acute pain in the right ear, which grew more intense as night came on. He stated that he had caught a cold while his bedroom was being aired. The day after I observed paralysis of the right side of the face; the eye was wide open and staring, and could only be partially closed; the cheek was flaccid and the mouth drawn to the left side; the tongue could be moved at will, but if protruded from the mouth its tip was drawn to the left. Almost total deafness in the right ear; loud and shrill sounds caused an unpleasant sensation, and the ear was the seat of a continual pain, which occasionally became quite acute. There is a mucopurulent discharge from the meatus. The patient states that he has had occasional spells of otorrhœa for the last three years, but these have never lasted for any length of time, nor has the discharge ever been very profuse or accompanied with pain.

The patient was immediately put under an antiphlogistic course of treatment, with syringing, instillation of oil, the application of dry cups, etc.; and after ten days' continuous pain leeches were applied over the mastoid process.

At the expiration of two days I was greatly surprised to find that the symmetry of the face had been restored, but the illusion that the case had taken a favorable turn was quickly dispelled. As soon as the patient attempted to answer my questions it was manifest that the absence of symmetry was not due to the restored mobility of the facial muscles, but to a paralysis of the left side of the face, which hitherto was unaffected. The patient informs me—more by means of signs and gestures than by words, which can be articulated only with difficulty—that during the previous night he experienced very great pain in the left ear, which has been growing even more intense, and since which time the paralysis of the tongue and difficulty of speech have set in. Hearing is now considerably impaired on the left side, and there are evidences of a purulent discharge.

The condition of the patient now remained the same for more than five weeks. The expression of both sides of the face is the same, and owing to the paralysis of the facial muscles the patient has a peculiar vacuous stare, and is as pale as a corpse. The forehead can not be wrinkled; the eyelids are wide open, and the eyeballs are rolled upward during sleep as well as when awake; the cheeks and mouth are flaccid; the nostrils immovable and only distended during the expiratory act; the lips fail to prevent the outflow of saliva as soon as the head is raised from the recumbent position. When the patient partakes of food he bends his head even more backward than before, in order to retain matter in the buccal cavity. Chewing is very difficult, and for this reason he is fed with fluids only, which he puts back in the mouth as far as possible, and manages to swallow by bending his head backward. The expectoration of mucus is accelerated by a rapid bowing of his head.

Deglutition is also somewhat impaired. As it is accompanied by pain and the pharynx is congested, this difficulty is attributed to an extension of the inflammatory process from the tympanic cavities through the Eustachian tubes into the pharynx. But this may also be due to a paralysis of those filaments of the facial nerve, which, anastomosing with the glossa-pharyngeal, supply the pharynx, or by the impaired action of the digastric and stylo-hyoid muscles.

The mobility of the palate is unimpaired. There is no nasal voice nor any regurgitation through the nose; articulation is indistinct; the pronunciation of words unintelligible, as the lips can not act; the voice has a peculiar guttural, barking sound. The tongue is partially paralyzed; the patient can move it about in the buccal cavity with considerable ease, and can protrude it without difficulty; but this is only partially complete, nor can the organ be elevated. The explanation of this is probably as follows: to the paralysis of the digastricus and stylo-mastoideus, which assist in the protrusion of the tongue, and on the other hand to the impaired action of the superficialis lingualis muscles, which tend to shorten it, inasmuch as it contracts the tip upward and backward. The sense of taste does not appear to be materially affected.

The symptoms of otitis were not greatly relieved by medication. Local abstraction of blood, cauterization of the mastoid processes, narcotic injections into the meatus, injection of air into the tympanic cavity, etc., though affording partial relief, did not lessen the discharge nor check the progressive deafness, which soon became complete, and were eventually followed by perforations of the membrana tympani. Electricity, which was used as a *dernier ressort*, had no effect whatever on the paralyzed muscles. The tuberculous symptoms were rapidly aggravated, and the fever and colliquative sweats exhausted the patient to such a degree that death ensued about two months after he first put himself under treatment.

At the post-mortem examination, made eighteen hours after death, the lungs were found in a markedly tuberculous condition. The brain and all the other internal organs presented no pathological appearances. The condition of the two temporal bones was a very interesting one. The walls of the Fallopian canals were intact throughout their entire length. The part of the facial nerves, however, passing through this canal was literally bathed in pus, while at its entrance into the meatus auditorius it was unimpaired. The walls of the middle ear were carious on both sides, as were the mastoid cells of both ossæ temporales. On the left side there was a loss of tissue, about the size of a pin's head, at the margin of the glosserian fissure, from which there was an exit of purulent matter from the tympanic cavity, which had collected itself behind the left condyle of the lower jaw.

This case differs from the most of those recorded, inasmuch as in these the caries of the temporal bones generally extended into the Fallopian canals, thereby affecting the facial nerves more or less. In the above case, on the contrary, the canals were intact in spite of the diseased condition of the middle ear. As usual, the probable cause of the inflammatory process seems to be a cold, which, occurring in a tuberculous subject who had already been liable to aural discharges, afforded ample opportunity for a rapid spread of the disease.

This appears to us to be more probable than the supposition that the pus found in the sheath of the nerve was derived from the tympanic cavity, and had found its way down along the chorda tympani into the neurilemma of the facial nerve.

The case is of peculiar interest in respect to the paralysis of the facial nerve, as the connection between the pathological effects and the exciting cause is more marked than in the majority of similar cases previously reported. The pressure exerted by the inflammatory congestion on the facial in its course through the bony canal gave rise to the general paralysis of all of those parts supplied by this nerve. The digastric and stylo-hyoid muscles were paralyzed because the branches supplying these muscles leave the nerve-trunk previous to its exit from the aqueduct of Fallopius, while the soft palate, on the other hand, was unimpaired in its mobility. The compression exerted on the nerve was limited to the Fallopian canal, for those nerves situate in the parts exterior to and above the stylo-mastoid foramen remained unimpaired throughout the entire course of the disease.

LOUISVILLE.

THE CLIMATE AND FEVERS OF THE SOUTHWESTERN, SOUTHERN ATLANTIC, AND GULF STATES.

BY JAMES C. HARRIS, M. D.

Although the West India Islands do not constitute any part of the Southwestern, Southern Atlantic, and Gulf States of America, a brief medico-topographical and meteorological account* of some of the larger of them will better enable us to show the great resemblance, if not entire identity, between some of the endemic fevers of the southern zone of the latter with those of the former.

These islands, which extend through some 23° of longitude, from 8° 30′ west to 14° 30′ east of the meridian of Washington, and from 10° to nearly 23° 30′ of north latitude, form a curvilinear chain from the southeastern point of North to South America, and are traversed by a range of mountains which can be traced from the northwestern point of Cuba through a number of lofty volcanic peaks on the Caribbean Islands to the shores of Venezuela. Their soil, resting upon a calcareous base, is, except where mixed with volcanic materials, generally argillo-arenaceous, and on the plains usually very fertile, producing in great abundance sugar, coffee, sweet-potatoes, tobacco, ginger, and spices, together with the tropical fruits.

Throughout the whole of these islands near the level of the sea the mean annual temperature is about 80°, and, according to the division of the seasons adopted in this essay, is for the winter 76°, for the spring 79°, summer 81°, and autumn 80°, with a very small annual and daily range of not more than 20° for the former and 6° for the latter. The temperature of the water in their harbors and for con-

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***Vide* Woodhidge, Willard, Morse, and Mitchell (geographies); Medical Statistics United States Army; Sir James Clarke, Drake, and Forry.

siderable distances from their shores, and at various depths short of one hundred feet, ranges from 76° to 83°, with a mean of nearly 80°; while the temperature of the surrounding sea-air is nearly as warm as that on some of the smaller islands.

Their range of atmospheric pressure is also very small, never exceeding an inch in any given year, and frequently not half this amount. Although the mean annual fall of rain in these islands is probably not more than sixty-five inches, there is a very great difference in this respect between them, it being much greater in the mountainous than the low ones; in Martinique, for instance, it is as much as one hundred inches, while in Antigua and Barbadoes it is respectively forty-five and fifty-eight inches. The smaller islands, unlike the larger ones, do not have regular alternation of land- and sea-breezes, but in their stead the easterly or trade-wind without interruption, except during the months of August, September, and October, when, although less regular, it is still the prevailing wind.

The winters and early part of the spring in the intertropical islands north of the equator are in general remarkably dry and the weather fine. The summer is dry and hot, and the autumn, particularly the month of October, the season of the heavy rains. In November the weather generally begins to clear up, the northeasterly winds resume their regularity; and from the beginning of December until the vernal rains of April and May the weather is dry, settled, and comparatively cool.* All these islands are subject during the summer and fall months to frequent thunder-storms and occasional hurricanes, which are sometimes truly terrific.

Among the forest-trees, shrubs, fruits, and flowers, which are similar to those of other tropical regions, we will only mention the royal palmetto, or mountain-cabbage tree; the campeachy and Brazilian trees; the corab, prized both for its thick shade and its excellent fruit. The trees most valuable for timber are the tamarindus, the cedar, the Spanish-ash, and the iron-tree. The dwellings of the planters are shaded with orange-, lemon-, and pomegranate-trees, which fill the air with the perfume of their flowers. The apple- and peach-tree grow in the mountains, while several oriental fruits—the rose-apple, the guava, the mango—abound on the sultry plains. The coasts are shaded with every variety of acacia, particularly the Farnese, remarkable for the beauty of its flowers. The sides of the momes, or precipices, are covered with opuntias and torch-thistles, and on the rocks near the sea-shore grows the vine-tree.

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* Clark.

Cuba, the largest of the West India Islands, geographically situated near the Gulf of Mexico, extends through 11° of longitude—2° 30′ east and 8° 30′ west—of the meridian of Washington, and from 19° 45′ to nearly 23° 30′ of north latitude. In an interesting account of Havana, its chief emporium, Dr. Le Riverend,* after showing the existence of many sources of disease in the faulty construction of its houses and filthy condition of some of its principal streets; the bad construction of the wharf; the putrefying offals of flesh, fish, and vegetable materials, exposed under a tropical sun at the different market-places; the bad quality of the water from the artificial creek, which in passing through a suburb receives during the wet season the water, decomposing vegetable materials, and other filth from the streets; then observes that although the recent introduction into the city of the filtered water of the Almendares, together with some other improvements, have notably diminished the frequency and intensity of disease in general, it is certain that these benign influences have not extended to yellow fever.

The harbor of Havana, a land-locked bay, is surrounded on all sides by hills, except on its northern aspect, where it communicates with the sea by a long narrow channel. Through a depression near its junction with the mainland, in a narrow peninsula which forms its northeastern boundary, the prevailing easterly winds are permitted to reach it. The bay is about eight miles in circumference; and with the exception of the small village of Regla, built upon a narrow slip of land which extends into the harbor, and a small peninsula, more than two thirds of its shores are occupied by fresh-water marshes, the first and most extensive of which lies near the city, and which during low tides or hot, dry weather is known to be a fruitful source of malaria. As the bay in many places is very shallow, and is somewhat lower than any of the surrounding localities, it is the receptacle of the greater portion of the filth of the city, much of the organic detritus of the surrounding country washed down through streams that empty into it, together with the drainage from the village of Regla, and the filth from the shipping with which it is crowded throughout a greater portion of the year. From these causes its water is very foul, being said to putrefy on standing in less than a single day, and when agitated often emitting a very offensive odor. There also exists at low tide (the tide here being from three to four feet), or during hot, dry spells of weather, when evaporation* and absorption are rapid and great, an extensive source of malaria in the marshy surface around its shores.†

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* Memoir on Yellow Fever. New Orleans Medical and Surgical Journal, September, 1847.

During the first three months of the dry season, which begins in November and ends in May, the prevailing winds are from the north and northeast, and there is very little rain. Toward the end of February the hot south-wind commences to blow with force and frequency. During this period the dawn and the evenings and nights are cool, sometimes cold, but from ten o'clock in the morning until four o'clock in the evening it is very warm. These atmospheric changes produce muscular and articular inflammations, neuralgias, intermittent fevers, and, together with the particles of dust with which the air is charged, affections of the eyes, bronchii, and lungs. During the succeeding three months of March, April, and May the heat gradually increases, the scorching south-wind being interrupted only in the morning and evening by light easterly breezes. At midday the air respired is truly suffocating, the mercury ranging from 96° to 97° in the shade. During the last two months (April and May) of this period cases of intense gastro-enteritis and gastro-encephalitis occur, which frequently assume the appearance of yellow fever.

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*See Lewis S. Pilcher, M. D., Essay: Bureau of Medicine and Surgery, U. S. Navy, 1873, p. 210.

† La Roche, vol. ii, p. 391; and New Orleans Medical and Surgical Journal, September, 1851, p. 207.

During the rainy season, which begins in May and terminates in November, the prevailing wind is from the south, which, blowing across the western part of the island, arrives at the city laden with the exhalations from the numerous swamps over which it passes. At the commencement of this season it rains almost every day after midday. Yellow fever now becomes epidemic. As the summer advances, if the clouds which daily form on the horizon do not bring rain, the atmosphere becomes charged with electricity, and the heat from ten o'clock in the forenoon till five o'clock in the afternoon reaches a suffocating degree of intensity. During this peculiar atmospheric condition not only the creole but the stranger feels an invincible repugnance to the slightest exertion; and almost every disease now from its commencement, particularly yellow fever, takes on the hemorrhagic form.

In Havana the mean temperature of the coldest month is about 70°, and that of the winter season nearly 73°. Intermittents and mild remittents prevail throughout this period. As the winter season gradually advances into spring these types of fever become more malignant and unmanageable. In April or May some of them end in hemorrhage or black vomit; or, in other words, yellow fever becomes epidemic, and continues to prevail in this form until about the 1st of December, and afterward sporadically throughout the remainder of the year.

Jamaica, on account of its greater size and the height of its central ridge of mountains, differs in some respects from the other islands in having a greater range of temperature, and therefore a greater variety of climate. Its mean annual temperature is 5° greater on its north than its south side. The most healthy district in this island is said to be in the mountainous part of the parish of St. Anne, near its center, in which the mean annual temperature is 76°.*

According to La Roche,† the number of persons who died on this island until recently equaled every five years its total population; and now on its plains and low coasts are found sources of malaria in great abundance, either in the shape of mangrove marshes, or wet and sandy surfaces covered with these or other shrubs, which grow and run to decay rapidly, constituting a kind of water-forest, the lower part undergoing decomposition while the upper is in a state of luxuriant growth and beautiful verdure.

Stony Hill is a small mountain, or rather a large hill, situated nine miles from the city of Kingston, at an elevation of thirteen hundred and sixty feet above the sea; is without either marsh or marsh-like land in its vicinity; but from its base to its top, a distance of about one mile, is a mass of calcareous rock, intersected by deep fissures and split in many places into large fragments. There is scarcely any soil, grass, weed, or herbage any where on its surface; but it is generally covered with forest-trees, the roots of which are exposed and cling to the rock, the extreme fibers dipping into the crevices and hiding themselves amid the detritus of rock, decaying branches, leaves, and other ligneous matters which are lodged there.‡

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* Clark on Climate, p. 158. † La Roche, vol. ii, p. 393. ‡ La Roche, vol. xi, p. 402.

Notwithstanding this scarcity of soil and almost entire absence of herbaceous materials at Stony Hill, there is always present in the decomposing trunks, branches, leaves, and roots of the trees, together with other vegetable materials lodged in the holes and depressions on the surface, sufficient to produce after rains, under the influence of a tropical sun, malaria in abundance, and probably of the most concentrated character. That such is the case we think is demonstrated by the fact that the British soldiers quartered here have frequently been scourged by the most deadly epidemics of yellow fever.

The year 1825 was one of almost universal sickness, as well among the military as the civil population of this island. In the yellow-fever epidemic that prevailed at this time there were admitted to hospital from the 1st of February to the 26th of March, from the 77th Regiment, one hundred and ninety-eight men, besides an equal proportion of officers, women, and children. The fever was attended with hemorrhage and black vomit, and the proportion of mortality was one in four of the number admitted, yet it is described by Dr. Richardson as a fever of considerable excitement and of a purely remittent type.*

From the 26th of March to the 10th of May eighty cases were admitted, of which number twenty-one died. The dry, hot weather still continuing, the epidemic gradually increased in violence, the remissions becoming shorter and less distinct. Hemorrhages from every orifice were now a very frequent symptom, and many died in this way after the fever had subsided.

About the middle of April the rains began to fall, and, increasing about the middle of May, the epidemic disappeared. From this time until the 1st of June there was not a death in the hospital; and it was, says Dr. Richardson, not until after the continuance of some six weeks of dry weather that it again began to be sickly. The number of admissions of fever from this time, the 18th of July, to the 8th of September, amounted to about two hundred, of which fifty-seven died, the greatest mortality at any period of the year. During the month of August the fever assumed the continued type.

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* New Orleans Medical and Surgical Journal, September, 1850, pp. 236–7.

From the history of this epidemic, as well as of others which have at different times prevailed here, it appears that all the types of malarial fever—intermittent, remittent, and continued—under certain meteorological influences, blended or ran into each other; some of them terminating in death from spasms, exhaustion, hemorrhage, or black vomit; and goes to show that what La Roche styles ligneous malaria not only produces yellow fever, but all the other varieties of malarial fever.

From Dr. John Furlinge, a civil practitioner of Antigua, we learn that whether the fever there presents the intermittent, remittent, or yellow-fever type, the same atmospheric conditions give rise to them all; the more malignant forms appearing generally in the unacclimated, and the milder grades in the native and acclimated.

At Basse Terre, the capital of the island of Guadaloupe, yellow fever has on several occasions prevailed during the dryest and coldest and ceased during the wettest seasons of the year. It also appears to be a well-established fact that in the high, dry, and well-cleaned parts of the island of Barbadoes, where the soil is mostly calcareous and extremely light and absorbent, and all under cultivation, an uncommonly rainy season always brings on a time of general sickness; while in Trinidad, which is almost entirely a mangrove swamp, a dry season produces the worst forms of remittent fevers; showing, we think, that dry soils containing vegetable matters previously saturated with water, under a temperature of 80° and upward, become sickly; and that those flooded with water, and healthy during an extremely dry season, become unhealthy.

In his report to the Lords of the Council of the British Army Medical Department on yellow fever Dr. Burrell says:*

"In protracted cases of acknowledged yellow-fever epidemics distinct remissions are frequently observed; and cases presenting the remittent form frequently precede, accompany, and follow cases of yellow fever in the same regiment under similar hygienic conditions. Without therefore maintaining that yellow fever is always of the remittent type, it is fairly to be inferred that it is frequently so, and only fails to show remissions from the violence and rapidity of its course.

"I believe the causes of the aggravation and increase of the ordinary fevers, and their assumption of the yellow-fever form, to be always an epidemic constitution of the atmosphere in the Mediterranean and the Northern States of America, assisted by malaria in its extended sense, and these eqally obtain in the West Indies and other places as far as relates to the native and other acclimated residents; deviations from this depending for the most part not on the arrivals of ships, as is alleged by the ultra contagionists, but on a more intelligible contingency—the presence of the unacclimated stranger. I also believe the yellow fever to have no specific character or pathognomonic symptom; not to be defined in its course, duration, or attributes; but an occasional variety of a numerous and protean class of fevers—continued, remittent, and intermittent—of certain latitudes, and to differ from these only in violence, rapidity of course, and ultimate phenomena."

In relation to the local origin and non-contagious character of yellow fever, we are informed by La Roche† that in every outbreak of it which he has observed in tropical regions all have been satisfactorily accounted for by local causes; that in numerous instances the disease has undeniably arisen without the possibility of tracing its introduction to an exotic poison, and that in others the freest intercourse between infected and healthy localities has been maintained without the least injury to the latter. In most tropical cities where the disease shows itself annually as an epidemic, and almost all the year round in a sporadic form, La Roche thinks it must be admitted to assume the epidemic garb, without the necessity of having recourse to an imported poison or assimilative ferment.

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* New Orleans Medical and Surgical Journal, Sept., 1853, p. 263.

† La Roche on Yellow Fever, vol. xi, pp. 803–4.

As no one now will deny the malarial origin of intermittent fever, we hold that, if any thing further were necessary to show that the other varieties had a similar origin, the facts we have just cited, together with the history given by Dr. Heustis of the bilious, remittent, or yellow fever that prevailed in Cahaba, Ala., during the fall of 1821; Dr. Gantt, of its occurrence in Selma, Ala., in 1824; Dr. Moore, at Fort Brown, Texas; and other examples of which the records of medicine are full; are sufficient, and ought, we think, to set the local origin and non-contagious character of these fevers forever at rest.

As the region of the West Indies, the shores of the Gulf of Mexico and Atlantic Ocean from Vera Cruz to Charleston, S. C., generally possess the topographical and meteorological elements of climate necessary for the production of the several varieties of malarial fever, we therefore conclude that the theater of their greatest prevalence exists within the limits of this extensive tropicoid and tropical region.

We think it clearly proven that the meteorological elements of climate, either singly or combined, are insufficient to produce any of the varieties of malarial fever; but that there does exist as the remote cause of fever an element the result of decomposing vegetable matters we think clear, from the fact that wherever we find a large amount of vegetable matter, in connection with certain degrees of heat and proportions of moisture, there we meet with febrile diseases. To this effect we have the concurrent testimony of the profession every where.

To the inquiry then, What is malaria? we answer, it is a gaseous poison, an intangible element, and demonstrated by innumerable histories to be the result alone of decomposing vegetable materials under certain conditions of heat and moisture.

Having thus endeavored to show that during the summer and fall months, in some localities on the Atlantic and gulf coasts, and for a certain distance up the valleys, and on the banks of some of the principal streams, all the varieties of malarial fever occasionally prevail, while in others—the more elevated, colder, and dryer portions of the interior—yellow fever never appears, we will now, upon the hypothesis that decomposing vegetable materials under certain meteorological laws are absolutely necessary for the production of the cause of malarial fever, proceed as briefly as possible to point out the influence exerted by heat, elevation, and atmospheric pressure in modifying its grade and limiting its altitudinal and geographical range.

At Stony Hill, Jamaica, with an elevation of thirteen hundred and sixty feet, yellow fever prevails in an epidemic form. In the Southwestern, Southern Atlantic, and Gulf States of America this grade of fever has never reached a greater altitude than that of Fort Smith, four hundred and sixty feet. "To the east" [under the name of autumnal fever], says Dr. Drake,* "its barrier is the Appalachian Mountains, into the very gorges of which it ascends by the valleys which penetrate their flanks to the height of three thousand feet; but as this chain is not found south of the thirty-third degree of latitude, it has below this parallel no eastern limit but the Atlantic Ocean. Three hundred miles to the west of the western boundaries of the states of Missouri and Iowa, and above the latitude of 37° north, the disease is almost unknown." To the north, about the forty-seventh parallel, it ceases to prevail even sporadically.

The mean atmospheric pressure at the level of the sea throughout the whole of the West Indies, at Fort Brown, Tex., New Orleans, La., Key West, Fla., and Charleston,

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* Principal Diseases Int. Val. North Amer., vol. i, p. 704.

S. C., is about 30 inches; at Stony Hill 28.715 inches; at Fort Smith, Ark., 29.500 inches; at Fort Thorn, Territory of New Mexico, and Fort Buchanan, Arizona Territory, 25 and 26 inches respectively; showing a difference in the atmospheric pressure between the shores of the West Indies where yellow fever annually prevails, and Fort Smith, where it has probably never occurred more than once, of 1.500 inches; and between Fort Buchanan, where it has never prevailed, a sea-level of upward of four inches, or nearly one seventh of the whole weight of the atmosphere.

The mean annual and summer temperatures at Stony Hill and Fort Smith are for the former 80° and 81° respectively, and for the latter 61° 23′ and 79° respectively; showing that although they differ widely in their annual they very nearly approximate in their summer temperatures. Upon this part of our subject we are informed by Dr. Drake that for the production of malarial fever it is the temperature of the summer more than that of the year with which it appears most intimately connected, and that the fever will not prevail in an epidemic form where the temperature of this season falls below 65°; and that if other conditions favoring its generation are wanting, it will cease before this reduction of temperature is reached; consequently the fever will occur in winter at any place where the mean temperature of that season is 60° or upward, as in the West Indies, at Vera Cruz, Tampico, Fort Brown, Key West, or Fort Brooke. From the equator, taking the West Indies and our southern gulf coast, up to about the twenty-eighth parallel we find every winter month rises above 60°; and that as we advance from this parallel to the north there is a gradual decrease in temperature, until finally in the distant north the whole year falls below 60°; but long before this reduction in temperature is reached the fever ceases; therefore it results that a continuance for more than two months of a heat equal to 60° is necessary for its production.

The states of Texas, Louisiana, Mississippi, Florida, Alabama, Georgia, and South Carolina border upon the Gulf of Mexico and the Atlantic Ocean, and, together with the southwestern portions of Tennessee, Arkansas, the Indian Territory, New Mexico, and Arizona, extend through some thirty-six degrees of longitude and twelve or thirteen parallels of latitude. They, it is true, possess considerable diversity of climate; but that this alone is not sufficient to furnish any other varieties of fever than those belonging to a tropical climate will, we think, be apparent when we recollect that there is no point within their boundaries at which the mean summer and autumnal temperatures fall as low as 60°, and that from the comparative mildness of their winters periodicity more or less marked is impressed on nearly every case of fever occurring throughout this season.

Having now endeavored to portray the great agent which regulates the production of malarial fever in all its varieties on this continent, it follows, we claim, that this form of disease can never originate at least in any region lying entirely above the forty-seventh degree of north latitude, and having a lower mean seasonal and monthly temperatures than those indicated. The accompanying table will show that the mean summer and autumnal temperatures of Paris, London, and Edinburgh fall considerably below these points; and hence it results that fever produced in either of them can not be identical with that occurring in the southern regions of the United States during the same periods of the year. And why? Simply because our fevers are the result of a high temperature long continued, and are attended with a disordered action of the hepatic system, and generally marked at some period of their history by distinct remissions and exacerbations, which characteristics they manifest throughout the entire round of the seasons; whereas fevers in the cities named, being the result of a low temperature long continued, must fail to present either of these features; thus establishing a difference of type between them equal, if not greater, than that existing between the climates of our Southern States and that of Scotland. If this be true—and of which, we think, there is very little doubt—the inquiry here then very naturally arises, Do the mean temperatures of the winter and spring seasons of the states alluded to ever descend sufficiently low and remain so long enough to produce typhus or typhoid fever as it is seen in England and France? To answer this question properly would protract this paper to an unpardonable length; suffice it to say that we believe such is not the fact.

PLACES.	Latitude	Mean Annual Temp.	MEAN TEMP. OF THE SEASONS.				Difference between Winter and Summer.
			Winter.	Spring.	Summer	Autumn	
Key West, Fla	24° 34′	76° 36′	70° 08′	75° 97′	81° 85′	75° 54′	11° 79′
New Orleans, La	29° 57′	70° 19′	58° 03′	72° 06′	82° 03′	73° 04′	22° 00′
Mobile, Ala	30° 42′	70° 29′	57° 26′	70° 36′	82° 75′	71° 01′	24° 49′
Wetumpka, Ala	32° 30′	67° 50′	52° 57°	69° 12′	80° 44′	68° 13′	27° 47′
Natchez, Miss	31° 34′	67° 00′	52° 18°	67° 81′	89° 96′	67° 06′	28° 78′
Huntsville, Ala	35° 45′	59° 38′	42° 15′	59° 96′	75° 62′	59° 79′	33° 47′
Paris, France	48° 50′	51° 50′	38° 43′	50° 40′	64° 47′	52° 30′	25° 83′
London, England	51° 31′	50° 39′	39° 12′	48° 76′	62° 32′	51° 35′	23° 20′
Edinburgh, Scotland	55° 58′	47° 31′	39° 40′	44° 70′	57° 30′	47° 86′	17° 50′

As regards the season of the year when typhus fever is most prevalent, we find on examining the time of admission to the hospital of the fifty-eight cases reported by M. Louis as having died of this affection, that sixteen were admitted during the winter, nine during the spring, fifteen during the summer, and eighteen during the autumn; thus giving a decided preponderance (in the proportion of thirty-four to twenty-four) of admissions to the coldest seasons of the year; which, taken in connection with the latitude and mean seasonal and monthly temperatures of the locality, goes far to show (what we believe is the fact) that typhus is a disease not only of high latitudes, but that it prevails to the greatest extent during the periods of greatest cold.

Without attempting to show that the above cases of M. Louis originated under circumstances known to be inadequate to the production of malarial fever, the possibility of their identity with the fever that occurs during the summer and fall seasons with us is, we think, completely destroyed by the fact that they prevail at seasons of the year the low temperature of which is known to be fatal to every variety of malarial fever.

Before we can admit the possibility of these fevers originating within the boundaries of the region under consideration we would have to be first shown that there are places within these geographical limits where the winter temperature descends sufficiently low, and remains so long enough not only to destroy the malarial and hepatic features of our diseases, but to produce a fever the result of cold, of overcrowding, or of other causes, and recognizable by symptoms identical with those of the European varieties, and this we consider next to impossible to do. Notwithstanding we know of localities in the northern portions of the states in question in which the winter temperature does sometimes fall as low as that observed during the prevalence of these varieties of fever on the eastern continent, still when we compare the sparse population of these districts with those of Great Britain and France, and recollect that clearing, draining, and putting into cultivation large tracts of country accomplishes, in connection with increase of population, corresponding changes in the types of disease greater, if possible, than it does in the physical features of the country itself, their advent among us is made to no inconsiderable extent dependent upon and connected in the future with a period which stands in relation to these changes as cause and effect, and which when attained can never produce any thing more than a modified type of these varieties of fever, which are, in our opinion, strictly the offspring of a hyperborean climate.

WETUMPKA, ALA.

HOSPITAL OBSERVATIONS UPON NEGRO SOLDIERS.

BY A. W. M'DOWELL, M. D.

During the recent civil war I had ample opportunities for observing the United States colored soldiers in regard to their physical organization, their power of enduring disease or wounds, and for witnessing numerous autopsies. I write simply the results of these observations, not seeking to establish any theory nor to confirm any prejudices, and I am a firm believer in the unity of the human race. I present the truth as it was obvious to me, and I should be glad if others having like opportunities would do the same, and then possibly we might arrive nearer a solution of some of the difficult problems in reference to the negro.

I was on duty during a part of the war at Benton Barracks, near St. Louis, at that time the rendezvous of the colored troops of the Western Department. At one time there were seven thousand of these, together with probably three thousand unenlisted negro men and women and children, all drawing United States rations and entitled to medical services.

Before going to Benton Barracks I had been in charge of the hospital at Ironton, Mo., and while there an order was issued directing post-surgeons to examine all colored men in their vicinity, so that if found healthy and available they could be enlisted. Under this order I made numerous examinations, and many enlistments were made. I had examined many white men before, but this was almost my first experience in the examination of negroes, and I was much pleased with the subjects. Such fine development of chest and lungs, according to the standard measurement, I seldom had seen; the expansion and contraction perfect, the measurements up to the fullest standard of army requirements. But when I went to Benton Barracks I saw these soldiers, apparently so fully developed and with such ample chests, dying *easily* and very rapidly of pneumonia, the disease being much more fatal among them than among the white soldiers. I was disappointed, mortified, and surprised that my splendid soldiers should succumb to disease so soon. But autopsies explained the mystery. These soldiers had a remarkable development of the pectoral muscles, and their mammæ were almost as large as women's; but their lungs were much less in weight than the white man's. This proved to me that expansion, contraction, and external measurement of the chest were by no means certain criteria of vital power. Besides, the negro with pneumonia will not bear reducing treatment; he must have stimulants from the first.

Our autopsies too showed that his brain was smaller than the white man's. In the hospital there were two thousand patients—fifteen hundred whites and five hundred colored—including various shades, from mulattoes to full-blooded negroes; the mortality was vastly greater among the latter than among the former. We weighed every brain in our post-mortem examinations, and just in proportion to the admixture of Caucasian blood did the weight increase; the white man's brain was the heaviest, and thus down to that of the pure negro, which was the lightest. I say nothing of relative intelligence. I present no opinions, but simply physical facts.

The negro's liver was larger than the white man's. Masters in the South supplied their slaves with corn-meal, bacon, and molasses. The army ration of the colored soldier differed from that of the white, the former being bacon, corn-meal, and brown sugar. Since the negro's lungs were smaller, his larger liver helped to decarbonize the blood, and thus a proper equilibrium was maintained.

The negro's lower bowel was smaller. The colored troops were much troubled with constipation, often requiring purgatives, while at the same time and place the white troops had diarrhea. The most marked difference existed between the spleen of the black and that of the white, the former only weighing half as much as the latter. "Ague-cake" was one of the sequelæ of malarial disease observed among the whites, but not among the blacks. The genital organs of the negro, especially true of the penis, were much larger than those of the white man.

These autopsies were made carefully, daily and for a length of time, and the results were as stated. I testify to facts that I repeatedly witnessed. To me they were most striking, almost startling, and I leave my readers to draw their own conclusions from them; but one thing is certain as I saw it—there is anatomically a marked difference between diseases in the black and the white.

This was my first experience in treating the diseases in negroes, and I embraced every opportunity for the faithful study of these diseases; and all my professional associates and I were united in the opinion that these people do not bear up under disease as well as the whites. So too as nurses for each other they are careless and indifferent. In all our wards the head nurses were white, the subordinates colored. With all our care and supervision the negro mortality was fearful, three times as great as that of the whites. In case of wounds I did not observe this difference. The negro was rather proud of being shot, and would point with exultation to his wound.

The treatment of pneumonia excited considerable controversy, some warmly advocating veratrum viride; others quinia, Dover's powder, and stimulants; but there was no difference of opinion as to pursuing the latter plan in case of negro patients, for unless thus treated they all died, and even then the mortality was very great.

Cerebro-spinal meningitis was a frequent and very fatal disease among the colored troops. It generally commenced with pain and stiffness in the nape of the neck, almost like the soreness of rheumatism; sometimes there appeared to be congestion of the lungs. The first stage—the patient being restless, feverish, and uneasy—continued from twenty-four to thirty-six hours, when the second stage, characterized by mild delirium, bright and injected eyes, and all the evidences of intense cerebral excitement, supervened. In this stage contraction of the fingers and arms occurred, though with the use of some force it could be for the moment overcome. The patients were conscious, looking anxiously in your face, but seldom speaking. The second stage lasted, according to the age and strength of the patient, from thirty-six to forty-eight hours. Then came the third and fatal stage—I say fatal, because I never saw a colored man recover, although a few whites did recover—characterized by profound stupor, low muttering delirium, the tongue and teeth covered with dark sordes; then contraction of the toes and of the legs; and finally opisthotonos, sometimes so complete that a pillow could be readily slipped under the back, followed by death. Occasionally a white patient would recover under large doses of quinia and capsicum, but a black one never.

Frequent post mortems showed intense congestion just at the junction of the spinal cord and the medulla oblongata, and effusion of fluid, generally one or two tea-spoonfuls. The lungs were much congested, which condition we generally regarded as an effect of the spasms, not an essential of the disease, looking upon the latter as seated in the upper part of the spinal cord and in the medulla oblongata.

PLUCHAMIN, SOMERSET COUNTY, N. J.

TUBERCULAR ULCERATION OF THE LARYNX.

BY F. C. CURTIS, M. D.

Gustave S., aged twenty-eight years, laborer, was first seen about three months before death. He came to the office complaining of trouble in his throat mainly. He has been hoarse for a year back. This came on gradually, and for some time he has been unable to speak above a whisper. There has not been complaint of much pain in the part. He has been engaged in herding cattle at West Albany Yards, and the cause assigned for his throat affection is shouting to the cattle in driving them. His father says that he has been very intemperate in the use of his voice, straining it without reason. The same lack of care has been observed in other things; he has exercised violently, and then sat in a cool place, chilling his body, or has drunk immoderately of cold water and sometimes of alcoholics. He has not been excessive, however, in the continuous use of the latter. His father states further that he has for several years had cough after slight exposure. For the last three years this has been more steady. He has been irregular as to time of taking food; still, in spite of cough and dysphonia and utter disregard of health, he has until recently been a pretty strong fellow, and has never had any severe sickness. He has had occasional pain in the chest; more of late. This he does not complain of as severe. He has too lost strength somewhat, and is emaciated. Expectoration is recently somewhat abundant. No night-sweats.

Having come principally on account of his throat, it was examined with the laryngoscope. There was found moderate œdema of the aryteno-epiglottidean folds on both sides, extending pretty uniformly around the glottis. The epiglottis was not affected, and a very good view of the cords throughout with their surroundings could be obtained. A large ulceration was found on the right side posteriorly, over the arytenoid cartilage, affecting the posterior third of the vocal cord, but having its center above it in the ventricle. Phonation was prevented by the inability to bring the two vocal cords in contact from loss of substance and circumscribed action of the left cord.

The ulcer was quite deep, but not abrupt, nor was there thickening or granulations of the edges; outline was ragged; no apparent discharge. Surrounding it was congestion and moderate œdema, but no other lesion was discovered. Anæsthesia of the throat generally was somewhat noticeable, as the first examination was very readily borne.

Examination of the lungs showed consolidation at both apices and fluid in the bronchii. His general appearance was fair.

Treatment was directed solely to his general condition; tonics and cod-liver oil were given, and directions as to care of himself. He came to the office at irregular intervals for a few times, no particular change being noted. He then ceased to report himself, and occasional word was brought that he was failing. It is probable that he took but little care of himself. He gradually failed in strength, and night-sweats (very profuse, with severe hectic fever) came on.

Called to see him near the end of February, six weeks before he died. Found the affection of the lung had extended very rapidly, and was far advanced from the condition of a month before. Mucous and submucous râles were heard all over both lungs, and the evidence of cavities forming at both apices. Cough was harassing and constant, expectoration being very abundant. He complained of almost no pain, but was unable to sleep from cough and sweating at night. The latter was checked somewhat by sulphuric acid and hyoscyamus. The bowels were not affected. There was no change in throat symptoms.

From this time the disorganization of the lungs advanced rapidly. He emaciated, and œdema of the face and extremities came on. He kept about the house to the last, and rode down town in a car a fortnight before he died. He was perfectly conscious to the last. Died April 7th.

Post-mortem examination was made twenty hours after death. Body was a good deal emaciated, and extremities œdematous.

Thorax.—Both lungs were bound by very firm adhesions to the chest-walls for the upper third, lung-tissue tearing up in attempting to separate them. This was more extensive with the right lung; and at one point was a ring of adhesion two inches in diameter, into which a cavity of the lung had perforated, matter and air oozing out as the lung was removed at this point. There was a small amount of effusion into both pleural cavities.

There were deposits of tubercle throughout both lungs, completely studding them, so abundantly as to almost solidify the tissue in parts. This was mostly of miliary size, but there were masses of the size of a hazel-nut. In the lower lobes there were recent gray tubercle, further up they were caseous at the center; and at the upper fourth of both lungs there were very many cavities, some being filled with caseous matter simply, as if just transformed from tubercle, others containing more or less purulent matter. Some were quite large, with ragged sides, and filled with pus and mucus. Muco-purulent matter exuded from the lungs on section, extensive tracts not being aërated. Only a small portion of the lower lobes along the anterior edges crepitated normally.

Examination of the larynx disclosed a large ulcer on the right side, at the posterior extremity of the vocal cord, ventricle, and false cords. It was quite deep, extending into the soft tissue above the cricoid cartilage, anterior to the arytenoid and deep down toward the wing of the thyroid. It did not involve much of the cord, not cutting entirely across it, though a sinus ran in back of it. The outline was irregular, but the sides were pretty smooth. A superficial ulceration of the mucous membrane surrounded this, the whole being about the size of a five-cent piece, and of this the ulcer proper occupied rather more than half.

Directly opposite this ulcer, at a corresponding point of the left side, was a still deeper ulcer, but not affecting the vocal cord by ulceration even of its mucous membrane. It was in the ventricle, and was a mere slit, in its long diameter four lines in length. It was on the line of the superior border of the cricoid cartilage posteriorly, extending back nearly to it. It could only be seen by separating the parts, being closed and invisible in a natural condition of the tissues. Extending upward from it was a considerable superficial ulceration of the mucous membrane.

The entire inner surface of the larynx was swollen, the cords, both true and false, being thickened so as to be hardly recognizable, and almost obliterating the ventricles. The anterior surface of the larynx was not so much affected, and the epiglottis was hardly at all thickened. There was a good deal of œdema of the tissues between the cricoid and thyroid cartilages, probably induced by the ulcers extending deep into them.

In the trachea there were a few quite superficial ulcerations or erosions of the mucous membrane. In one point only, low down toward the bifurcation, there was one that appeared to go down nearly to the cartilage.

The heart and the abdominal organs were healthy, presenting no material change.

A few words in regard to this somewhat rare affection may perhaps not be out of place.

First, in regard to the propriety of the term "tubercular ulcer." It is a question in debate whether the morbid process by which these ulcers exist is really tubercular—*i. e.*, whether they are due to the deposit of tubercle in the tissue, which, breaking down, causes a destruction of tissue—or whether they are simply the result of inflammatory action apart from any heterologous deposit. Virchow says tuberculous ulcers do actually originate from miliary tubercles. The absence of these so frequently, which leads other observers to deny altogether their presence in connection with ulcers, he explains by the perishable nature of these deposits. He asserts that he has found them himself.

Rindfleisch allows that they may be developed from tubercles; led to do so partly by the assertion of Virchow, and partly from having himself observed in microscopical sections, vertically through ulcers, clusters of cells situated well below the surface in the midst of connective tissue still intact, which remind him strongly in their behavior of miliary tubercles. "These tubercles, however," he says, "are so sparingly disseminated, and appear so insignificant in comparison with the inflammatory infiltration of the ulcerated surface itself, that I would only regard them as a pledge of the connection of the morbid changes with constitutional tuberculosis; at least they could only be raised to the dignity of permanent inflammatory irritants." *

Niemeyer seems to believe in the tubercular origin of these ulcers. He says the severity of the cough can not account for them, for it is often more severe in mere bronchial affections; neither, for the same reasons, can they be said to originate from foul, acrid secretions from lung cavities. Their anatomical appearance too as described by him indicates this opinion. We first observe, he says, gray round granules the size of a millet-seed, which turn yellow, soften, and disintegrate, leaving a small round ulcer. Fresh deposits in the vicinity occur, and the resulting ulcers run together, forming an irregularly-shaped loss of substance. More frequently though we first notice a yellowish discoloration, which the microscope shows to be an infiltration with small cells. The

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* New Sydenham Publications, vol. liv.

mucous membrane becomes relaxed, and a shallow ulcer follows, which may afterward extend very deep. I quote almost his words.

Türck, of Vienna, whose authority in affections of the larynx is received with great respect throughout Germany, though he has now been dead several years, says that deposit of tubercle is not often the direct cause of these ulcers, yet it is beyond a doubt that a certain number of them are due to it. The most common cause is catarrhal and follicular inflammation. Cohen, of Philadelphia, is very doubtful as to tubercle being deposited here, and would regard the small white pin-head points described as miliary tubercle as in most cases enlarged follicles.* Other observers utterly refuse to allow that tubercle is present or participates in these ulcers.

But it is not necessary to quote the opinion of a long list of authorities on this subject, which is of no great practical importance in the direct consideration of these ulcers. It has occurred to me, however, that it might be a good field to study tubercle itself, and might throw light on the now widely-discussed pathology of this heterologous formation.

The general opinion, held by most of the best authorities, seems to be that a limited number of the ulcers occurring in the larynx with phthisis are caused by a direct deposit of tubercular matter.

Ulcers may occur in the larynx from a variety of causes. Besides the one under consideration, there are those due to syphilis; to inflammation of the mucous membrane, either catarrhal or of the glands; to diphtheria, cancer, etc. The diagnosis of the ulcer of tuberculosis from all the rest is particularly desirable, inasmuch as the treatment is quite the opposite from most of them. While other ulcers may be made to heal only by severe treatment, cauterization perhaps, these are to be let alone, or to be soothed by sedatives and protections; but the appearance presents little that is characteristic, as far as I have been able to learn. Any of them may be superficial or deep and extensive. There are, however, certain guides to a satisfactory conclusion. The ulcers of cancer are accompanied by lancinating pain, the absence of which may exclude it; also the locality of the cancer-ulcer, which affects preferably the anterior portion of the larynx, when affecting it alone. The most common variety of cancer met with here, according to Rokitanski, is the epithelial, this being a favorite locality for its development. Its diagnosis lies mostly between it and syphilis, which it resembles more than other ulcers.

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* Cohen on Diseases of the Throat, p. 357.

Between tubercular and syphilitic ulcers the diagnosis may be in a measure reached by the locality. Syphilis attacks most commonly the epiglottis, and hardly ever the vocal cords. Tubercular ulcers are found more at the posterior portions of the larynx, affecting the false and true cords and the vestibule, rarely attacking the cartilages, and seldom attended with much œdema, both of which occur with syphilitic ulcers. Trousseau says that a dusky color of the membrane is diagnostic of syphilis. Aphonia is more complete in tubercular than syphilitic ulcerations. An ulcer seated on the posterior portions of the larynx, attended with only moderate œdema, causing more or less complete aphonia, lasting perhaps for a long time without producing great destruction of tissue, the pain of which is of moderate severity or but little noticed, and finally co-existing with phthisis of the lungs, may be called a tubercular ulcer. I think this is about a fair picture of it. Only a small portion of the cases of sore-throat with phthisis are due to ulceration, the existence of which can only be made certain by the laryngoscope.

A word only in regard to treatment. I think but little is called for locally. The ulcers are seldom of themselves the immediate cause of death, and then probably only by opening into the esophagus. Their tendency is, after advancing to a certain point, to become stationary, often producing but little serious inconvenience. Such at least is the result of my own limited observation. Occasionally they are said to heal of themselves.

The general treatment pursued in phthisis will naturally suggest itself in these cases, and where the disturbance caused by the ulcer is not too great will often be alone sufficient. The use of topical means is to be limited to the relief of the local irritation caused by the ulcers. Cough, which under such circumstances is a powerful irritant, is to be subdued. For this purpose morphia applied locally is sometimes useful. Nitrate of silver in solution, carried on a bit of sponge directly to the entrance of the glottis (Niemeyer), and inhalations of carbolic acid (Cohen) may also be employed for this purpose.

ALBANY, N. Y.

Reviews.

Archives of Ophthalmology and Otology. Edited by Prof. H. Knapp, M. D., in New York, and Prof. S. Moos, M. D., in Heidelberg. Vol. IV., No. 1. New York: William Wood & Co. 1874.

The above volume of Knapp's Archives of Ophthalmology and Otology will be found replete with interesting material. Recognizing the want of a more frequent publication, the editors have determined to make their journal a quarterly instead of a semi-annual, which it formerly was. In order to secure its regular issue, two associate editors—viz., Dr. E. Gruening, of New York, and Dr. C. J. Blake, of Boston—have been added, who are to assist respectively in the departments of ophthalmology and otology.

The number before us contains fourteen original articles and a review on each branch treated of by the Archives.

The first article is on a case of *glioma* with numerous subperiosteal metastatic tumors, and is reported by Drs. H. Knapp and Chas. S. Turnbull. Accompanying it is a lithographic plate illustrative of the microscopic and macroscopic appearances of the tumor. The interesting feature of the case consists in there being numerous metastatic tumors on different parts of the cranium, as well as in the right orbital cavity; and that they differed from other cases on record in that they did not originate in the diploë, but between the periosteum and the surface of the bone.

The second article is also on *glioma*, and is remarkable as showing in the case reported a family disposition to the disease, and by the obvious origin of the affection in the inner granular layer of the retina. It is reported by Dr. J. Thomson and Dr. Knapp, and is accompanied by two wood-engravings.

In the third article we have the results of the microscopic and macroscopic examination of two peculiar cases of sarcoma of the choroid by Dr. E. Williams, of Cincinnati, and Dr. Knapp. The first is an example of sarcoma of the choroid with infection of the retina and dissemination of germs from the degenerated retina upon healthy portions of the choroid; the second is a case of melano-sarcoma of the choroid extending to the retina and optic nerve, and presents several very interesting features, which we would like to discuss, but want of time and space forbid.

The fourth article is a report of three cases of tenotomy of the superior and inferior recti, with comments, by Dr. Knapp. Tenotomy of these muscles is but seldom performed, and the success attending the operations is a most gratifying one. In the first case the muscles were tenotomized for paresis of the upper rectus, in consequence of which there was impaired motion of the eye upward and downward, and marked diplopia above ten degrees below the horizon. The external rectus of both eyes and the inferior rectus of the left eye were divided in the second case, in order to relieve strabismus and diplopia; while the last, a case of strabismus sursum vergens, was improved by tenotomy of the superior rectus with a suture, increasing the effect, through the lower lid, and cured by advancement of the inferior rectus.

We next have the translation of "Clinico-ophthalmological Contributions," by Dr. Landesberg, of Elberfeld, Germany. Dr. L. reports first a case of *corectopia binocularis*, and next two cases of embolism of the central retinal artery, which present no particularly interesting points. A report of two cases of embolism of branches of the central artery follows.

Dr. Knapp again presents us with a new ophthalmoscope, which, besides other advantages over the instrument described in the last Transactions of the Ophthalmological Society, is purchasable at the comparatively low price of twenty dollars.

Dr. A. Schapringer, now of Milwaukee, reports a case of paresis of accommodation with apparent myopia.

Dr. Thomas R. Parley, of New York, reports a case of *keratitis vesiculosa* with secondary glaucoma. The presence of this complication suggested the idea to Dr. P. whether the continuous application of atropia used in order to combat the herpes did not give rise to the glaucoma. This is very improbable, as in nearly all cases reported of *herpes zoster ophthalmicus* there was loss of vision and destruction of the eye. In the last Transactions of the American Ophthalmological Society Dr. B. Joy Jeffries, of Boston, reports two cases with loss of the eye, and Dr. H. D. Noyes, of New York, one case with a like result.

We next have an interesting historical note concerning the physiology of the cochlea, by Dr. Schapringer. A passage from a work by Du Verney, published in 1684, is quoted to show the similarity of the hypothesis of Helmholtz and the author just mentioned, that there are fibers in the cochlea which correspond to every musical tone, which by their vibration excite nervous fibers attached to them.

The report of a remarkable case of phlebitis of the sinuses of the dura mater, caused by otitis, and terminating in recovery, follows. This is from the pen of Dr. R. Wreden, of St. Petersburg, and is reported with an exactness characteristic of the distinguished writer.

Dr. Oscar Wolf, of Frankfort-on-the-Main, publishes his interesting investigations on the methods of examination and the derangements of hearing. Dr. Wolf criticises the different tests now employed by specialists for determining the acuity of hearing, and again urges the claims of the human voice to being the most reliable test, as he has previously done in his work on *Sprache und Ohr* (Speech and Hearing).

Dr. Wreden, who first called attention to the study of the aural fungi, gives us a *resumé* of personal and foreign observations on *myringo-mycosis aspergillini*, extending from 1869 to 1873. The disease mentioned is an inflammation of the tympanic membrane caused by the irritation produced by the presence of a fungous growth in the auditory canal, the aspergillus niger or flavescens.

Dr. Charles H. Burnett follows in a report of a case of the disease mentioned above, illustrative of the typical features of the affection.

The last original article describes a case of pearly tumor (cholesteatoma) in both ears, by Chas. J. Kipp, M. D.

The associate editor, Dr. C. J. Blake, gives us an "otological review," in which all the more recent works and articles on the ear are mentioned and criticised with a leniency truly wonderful. Only the good points of the works under review are mentioned, while their faults are left unnoticed. This may be a very politic course to pursue, but according to our notion a review ought to be more discriminating in its judgment. The same, though in a lesser degree, may be said of the ophthalmological review by E. Gruening and H. Knapp.

The Archives are published by the well-known firm of Wm. Wood & Co., of New York, and are gotten up in the best style of the printer's art. We hope that the enterprise will meet with the success which it deserves, and think that every physician interested in the branches treated of should assist the editors in their work. R. C. B.

[Other reviews prepared for this number, and omitted for want of space, will appear in October.]

Clinic of the Month.

Neuralgias of the Joints.*—About fifty years ago the English surgeon Brodie reported, under the name of hysterical disease of the joints, the case of a young woman attacked with a painful articular affection. This disease, analogous to *arthrites*, which are accompanied by peri-articular swelling, should nevertheless be clearly separated from inflammation of the joints; and, according to Brodie, four fifths of the cases of articular maladies observed in the upper classes should be placed in this class.

In Germany Stromeyer first gave a good description of this disease, and has recently published a small work upon the subject.

The compendium of Pitha and Billroth contains a special chapter by Volkmann devoted to this subject. On the other hand, it is not mentioned in the monograph upon diseases of the joints by Hunter.

Recent works have called attention to this malady, which possesses the greatest interest with reference to diagnosis and treatment. We first cite that of Esmarch, in which thirty-eight cases are collected, some of them his own. Wernher, in his work, presents new views, but he bases them upon observations different from those of Brodie, and which tend to obscure rather than to enlighten the subject. According to him nervous coxalgia consists in a morbid process analogous to that which is observed in diseases of the epiphyseal cartilages. It is owing to a local nervous disturbance, and inflammatory symptoms are absent or appear subsequently. He thinks that nervous coxalgia may result in suppuration. It is difficult to admit the identity between the disease of Brodie and that of Wernher. The observations of the latter relate to children of from eight to twelve years not presenting any disturbance of the nervous system, and in whom certain muscular groups of the thigh are contracted, others paralyzed, atrophied, without electric reaction. In a word, it is impossible not to regard these cases other than an insidious and benign form of common coxalgia.

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* We have translated this article, by V. Berger, of Breslau, from the *Archives Générales*. It was originally published in the *Berlin Klin. Wochenbuch*. In the translation we shall omit Dr. Berger's cases. T. P.

The designation of Brodie, *hysteric coxalgia*, ought not to be retained, since the disease occurs in females presenting no other hysteric manifestation, or even in men. That of Esmarch, *articular neurosis*, seems to us neither sufficiently clear nor definite. We prefer the term which Brodie subsequently used, *neuralgia of the joints*, *arthro-neuralgia*, because in the opinion of all authors the disease is a neuralgia of the sensitive nervous filaments, distributed to the articulations or to the neighboring parts.

Neuralgias of the joints occur much more frequently in females than in males; and especially in the upper classes, in girls whose nervous systems have been enfeebled by false education. The patients present sometimes only the physical symptoms of this debility, supervening with anæmia, chlorosis, menstrual disorder, and at other times the characteristic symptoms of hysteria. It is easy to understand the *role* which may be exercised by the passions in subjects thus constituted. Nevertheless sometimes the disease is met with in healthy young girls, whose nervous systems are normal in functions, and it is also met with in men.

As to etiology, gastric disorders, irritations of the urinary system, vesical calculi, urethral stricture. (Stromeyer.) As occasional causes, traumatic lesions. (Brodie.) In these cases the acute symptoms have disappeared, and there remains an articular neuralgia. Thus Esmarch has seen the disease originate from a fall in dancing or in skating, from a bruise with effusion of blood in the knee-joint. In a case of neuralgia of the knee observed by Mayo an unsuccessful amputation of the thigh was performed, and the autopsy showed neuromata of the posterior branches of the nerves. Home found in a crural aneurism the explanation of the violent pain experienced by a patient in the knee. At the autopsy, the patient dying of phlebitis, some filaments of the crural nerve upon the surface of the tumor; these filaments terminated at the level of the painful part. I have seen a woman, forty-eight years of age, with a neuralgia of the knee following profuse uterine hemorrhage.

Volkmann classes with neuralgias of the articulations those complex cases where there is chronic inflammation of the joints with considerable disorder in their constituent parts or in the neighboring tissues, becoming subsequently the seat of violent neuralgic pains, sometimes periodic. But he distinguishes between painful nervous articular contractions and neuralgias of the articulations. The first occur in girls or women, hysterical or not, and are characterized, besides the neuralgic pains, by muscular contractions which render the joints immobile. The contractions, according to Volkmann, are reflex, and due to an irritation of the synovial membrane, whence there is in these patients an articular affection producing violent reaction. Nevertheless a simple neuralgia may by reflex action cause contraction, just as a neuralgia of the third pair will cause tonic and clonic contractions of the muscles of the face. Acute maladies, such as typhus and scarlatina, may produce articular neuralgia.

To sum up, the causes of these neuralgias of the articulations are the same as those of neuralgias elsewhere, except that hysteria exercises a much greater influence in their production. Arthro-neuralgia is a malady of peripheric nervous province; but the point of departure may often be found in an anomaly, congenital or acquired, of the central nervous system.

This malady often affects the knee. Of eighty-one cases collected by Esmarch, fifty-one his own, the disease in thirty-eight involved the knee, eighteen the hip, eight the hand, seven the foot, and four the shoulder. This peculiarity, according to him, is due to the fact that the nerves of the knee and of the hip originate in tissues which have in the pelvis numerous connections with those of the abdomen and of the genital organs.

The disease occurs in the vertebral articulations, and perhaps it is necessary to include in it the *rachialgias* so often observed in hysterical subjects. It is impossible to determine in any way, as Esmarch observes, in these patients whether the pain is seated in the intercostal space or in the small vertebro-costal articulations.

As a rule, the neuralgia is mono-articular; nevertheless sometimes several articulations are attacked simultaneously or consecutively. Thus Hirsch has seen a girl of sixteen years suffering in both ankles; Lehman one of ten years affected in each knee; Griffin a man of thirty years who was seized with pains simultaneously in the hip, the knee, and the elbow; Esmarch also reports cases of multiple neuralgias.

Articular neuralgias occur more frequently in the inferior extremities, and when occurring in the superior they are ordinarily symmetrical, and may simulate disease of the spinal cord or its coverings. Cruveilhier has reported the case of a woman, fifty-two years old, whose autopsy showed a gray degeneration of the posterior half of the cord.

I have seen consequent upon the war a certain number of analogous cases sent to the hospital under the rubric of chronic articular rheumatism. At first it was difficult to decide if the diagnosis was correct, or if there was an affection of the cord; the latter, however, was recognized by a thorough examination. The articular affection, sometimes associated with swelling, was entirely similar as to the neuralgic pains which are observed in spinal affections. It was a question of *tabes dorsalis*, its first manifestations being multiple neuralgias of the articulations. It is then impossible to be content with the vague expression rheumatic pains, and it is always necessary carefully to study cutaneous and muscular sensibility; thus we will avoid grave mistakes.

I have also seen, consequent upon hemiplegia, which was generally light, from cerebral hemorrhage, violent and obstinate neuralgias of the shoulder, rarely of the knee and of the hip. Recently I treated such a patient, in whom the pains became more intense at night, and who was several months unbenefited by treatment. There was no perceptible lesion of the scapulo-humeral articulation, but there was a cutaneous hyperæsthesia and pain upon pressure at the level of the brachial plexus. The long-continued use of galvanism was beneficial.

The symptoms of arthro-neuralgias are those of neuralgias in general, except that the former derive some peculiarities from their hysteric origin. There is especially violent pain, not continuous but presenting exacerbations more or less distinct, affecting the joint. This pain does not remain circumscribed, but it extends to the neighboring parts; and in reference to diagnosis it is very important to observe the disproportion between its violence and the comparatively slight articular alterations.

In a great number of cases the painful points pointed out by Valleix in neuralgia will be observed. In reference to the hip-joint, I have found a painful point midway between the trochanter major and the tuberosity of the ischium; again it may be found a little outside of the anterior superior spinous process of the ilium. As to the knee, there is almost always a painful point at the level of the internal condyle of the femur upon the internal border of the patella. (Esmarch.) I have found it at the external border of the patella below the point of this bone, and behind at the superior part of the tibia. In a case of tibio-tarsal neuralgia I have found two painful points at the level of the two malleoli. According to Esmarch, the entire articulation is painful, with the most sensitive points situated behind and in front of the malleoli. At the shoulder-joint the entire brachial plexus is sensitive in the *supra-* and *sub*-clavicular *fossæ.* In a patient suffering with neuralgia of the elbow Benedicht found an exaggeration of sensibility at the level of the external condyle of the humerus and at the head of the radius. At the wrist the painful point is characteristic at the styloid apophysis of the cubitus or ulna.

The arthro-neuralgias do not escape the law common to neuralgias, and it is not unseldom that at the commencement there is a cutaneous hyperæsthesia which may extend to the entire half of the body, replaced subsequently by cutaneous anæsthesia. Brodie has previously pointed out one peculiarity of articular neuralgia: simply touching the painful part produces more violent suffering than firm pressure; in fact, when the articular surfaces are strongly pressed against each other pain is 'not produced, contrary to what occurs in arthritis. The anæsthesia consecutive to hyperæsthesia of the skin has only exceptionally been referred to by authors, perhaps because their attention has not been directed to this interesting point. Volkmann quotes from Bodaert the case of a hysterical subject with neuralgia of the mamma in whom there suddenly occurred *talipes varus.* Attempts at reduction caused violent pains, nevertheless there were anæsthesia and analgesia extending from the instep to the leg.

In two patients not hysterical I observed cutaneous anæsthesia at the level of the diseased articulation; in one with neuralgia of the knee it was moderate; in the other, neuralgia of the knee and of the hip, it occupied the entire thigh. I have also observed paralgesius in my patients.

Besides these symptoms, disturbances of the vaso-motor nerves may be seen. Often there occur periodical changes of temperature at the articulation. Brodie has seen the articulation cold and bloodless in the morning become congested and bright-red in the evening. These phenomena of vascular paralysis recur in a manner analogous to the attacks of intermittent fever. Movements of the joint excite congestions of the same character. All these vaso-motor disturbances greatly resemble those which are seen in neuralgias of the third pair, of the brachial or of the ischiatic plexus. Not unseldom there is a peri-articular swelling, attributed by Esmarch to an effusion resulting from internal inflammation, or indeed from more or less ill-timed therapeutics. Sometimes there occurs upon the skin in the vicinity of the joint an eruption very analogous to urticaria. Movements of the joint cause in some cases crackings, of which it is impossible to give any plausible explanation. (Esmarch.)

As to functions, the patients especially complain of a *quasi* paralytic feebleness of the joint, which persists even after amelioration of the pain. Muscular contractions generally immobilize the joint in extension, while in *arthrites* flexion is the rule. The contractions cease under chloroform.

When these neuralgias depend upon hysteria they present the same variability as the other symptoms of this malady, and the most acute pains will disappear as by enchantment when the surgeon diverts the attention of the patient.

A pathognomonic symptom of the disease is the absence of pains during the night, while the pains and contractions of inflammation are then increased. Nevertheless in two patients suffering with neuralgia of the knee and hip the paroxysms of pain occurred especially at night; in another case, neuralgia of the knee, the pains were peculiarly violent when the patient was sitting, but ceased when walking.

Ordinarily the pains disappear slowly, or else there supervene paralyses and contractions of a different character. The patients do not leave their beds, isolate themselves more and more, and finally fall into marasmus. Inopportune treatment, want of energy toward the patient are but too often causes facilitating this unfortunate termination. It ought to be added that the disease does not present this history except in the hysterical; in other cases its progress is that common to neuralgias.

The diagnosis of hysteric arthro-neuralgias will be rendered easy by the co-existence of other symptoms of the same character; but often there are great difficulties, especially if there be a traumatism of the articulation. We should not forget that certain articular inflammations are insidious, are accompanied by lesions scarcely perceptible, and Esmarch states that he has frequently mistaken dry caries for articular neuralgia. In such a case the progress of the disease alone could remove the uncertainty. For my own part I attach great importance to the disturbances of sensibility which I have previously indicated. Esmarch adds that we may be guided by the result of treatment, since the means commonly used in inflammation—immobility, antiphlogistics, etc.—will aggravate neuralgia.

It is necessary in the treatment to discriminate as to the cases. If it be one of hysteric arthro-neuralgia, general treatment is of first importance. Divert the patient's attention from the painful joint; combat the chlorosis; be assured of the integrity of the genital organs. In reference to the last point, Sims has reported two interesting cases of coxalgia.* In one of these cases there were granulations of the cervix and leucorrhœa, and the patient had been confined to her bed for years. The granulations were cured, but the patient still had pain and want of power in the left hip-joint. Passing the sound into the uterus, it was ascertained that violent pain was produced in the diseased joint by the instrument when at the internal os. Glycerine injections into the uterus accomplished complete cure after some weeks. The second case was one of endometritis, accompanied with pains seated almost exclusively in the left arm. The introduction of the sound caused the same pains in the hip as in the preceding case.

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* Some years ago Dr. Churchill had a similar case sent him by Dr. Stokes, where the irritation of the hip was reflected from a diseased cervix. Curing the latter removed the former.—T. P.

The local treatment, according to Esmarch, ought to be the least possible. Antiphlogistics and revulsives are injurious, while a rapid amelioration is obtained if the patient is induced to use the painful articulation; commence with passive motion, then active. Sometimes *massage* gives good results. Cold affusions, douching the articulation, followed by frictions, are, in Esmarch's opinion, the best local means. As a general reconstituent he prefers cold sea-baths continued for some time.

If these neuralgias occur in persons otherwise in good health, employ the means usually used in other neuralgias—subcutaneous injections, blisters, and cold applications. In my experience electricity gives favorable results. The application of the faradic brush, or, if the patient can not endure this, passing a galvanic current, are the best electro-therapic methods.

In the cases of arthro-neuralgia apparently of spinal origin I have obtained good results from the galvanic current applied the entire length of the spine. Wernher, in his cases of nervous coxalgia, has obtained the best effects from continued extension.

THERAPEUTIC VALUE OF IPECACUANHA ADMINISTERED AS AN INJECTION.—M. Chouppe states that in 1873 Dr. Bourdon first used the decoction of the root of ipecacuanha as an injection per anum in two infants attacked with severe diarrhea. The results were most satisfactory. M. Chouppe was hence induced to try it in the diarrhea of tuberculous patients, and met with equal success. The preparation and dose he has found best are as follows: twenty grammes of bruised ipecacuan-root are boiled in five hundred grammes of water, divided into three parts, each portion being boiled on the root for ten minutes; the three decoctions are mixed together and boiled down to two hundred and forty grammes, to which are added about ten or twelve drops of laudanum. This is enough for two injections. For infants the dose is proportionately less, and no laudanum is added. Two injections are administered per diem to the patient, the first being given between 7 and 8 A. M.—that is to say, two hours before food; the second about 8 P. M.—that is to say, about three hours after the last meal. Vomiting was never observed. M. Chouppe found that injection of decoction of ipecacuanha into the veins of an animal produced violent vomiting and remarkable *dryness* of the mucous membrane of the intestine. The chief substances taken up by water boiled on the root are emetine and tannin, and both appear to have a powerful influence in checking irritation. The conclusions he arrives at from the review of a number of cases of diarrhea thus treated are: 1. That ipecacuanha administered in the form of injection produces very satisfactory results in the diarrhea of tuberculous patients and in the choleriform diarrhea of young children; 2. By this proceeding the disorders of the stomach frequently caused by ipecacuanha are avoided; 3. Injections per anum can be continued for a long time without producing any trouble of the digestive function nor weakening of the patient; 4. Ipecacuanha under these circumstances seems to act by absorption. (*Bulletin Gén. de Thérapeutique*, June, 1874.)

FINAL EXPERIMENTS ON THE ELIMINATION OF ALCOHOL.—"Looking to the fact," says Dr. Anstie, in the Practitioner, "that Dr. Parkes and myself have from independent (and indeed opposite) quarters come to singularly close agreement as to the daily allowance of alcohol that can be taken without producing any narcotism or other visible disturbance in the organism, I think I may take it as conceded that quite six hundred grains of absolute alcohol can be disposed of daily within the organism of an adult male without any perceptible injurious effect upon the bodily functions. Now this quantity of alcohol is (theoretically) capable of generating an enormous amount of force; but it is equally certain that that force does not show itself under the form of heat. It is scarcely possible therefore but that the solution of the questions as to the action of alcohol in the body will also bring about the discovery of new physiological facts of great interest and importance.

"1. If alcohol be a force-producing food, as seems by far the most likely, it is probably of great value in that capacity, on account of the rapidity with which its transformations take place. It is, however, abundantly certain that beyond a certain dosage (which is pretty clearly made out for the average, though of course there are individual exceptions in both directions) it becomes a narcotic poison of a very dangerous character in every respect; not the least disadvantage being that it can not be eliminated to any considerable extent.

"2. If alcohol does not disappear by oxidation, it must undergo some as yet quite unknown transformation, after which it must escape unrecognized in the excretions. I have heard various attempts to suggest such modes of disappearance, but nothing so far which wears any air of probability.

"3. If alcohol, however, be indeed oxidized, and yet does not beget force which can be used in the organism, this would be the strangest possible discovery. Considering the very high theoretical force value of the six to eight hundred grains of absolute alcohol which millions of sober persons are taking every day, we may well be hopeless of any reasonable answer to the question, Why does not this large development of wholly useless force within the body produce some violent symptoms of disturbance?"

Prognosis of Syphilis.—Dr. Sturgis, of New York, one of the highest authorities on the subject, writes as follows in the American Journal for July:

1. That syphilis is a self-limited disease, and the patient, if blessed with a sound constitution, will in the average of cases get well, even if left untreated; but this course exposes to great and serious risk.

2. That some general idea may be formed as to the future from the character of the earlier lesions. *This rule, however, is not absolute, as some cases do occur where the early stages are slight and the subsequent ones severe.* They are nevertheless, he thinks, exceptional.

3. That as the disease progresses the prognosis is less favorable, more especially where important organs are attacked, such as those of the nervous or arterial systems.

4. That in forming an opinion due regard must be given to the age and general health of the patient, and in the treatment attention must be paid, besides the proper use of specific remedies, to strengthening the patient, if debilitated from any cause whatsoever.

Treatment of Eczema.—Dr. Wiltshire communicates to the Trans. London Obstetrical Society the following very sensible suggestions on this vexed question:

"*General Treatment.*—When the health is depressed and nutrition has failed strict attention should, in the first place, be paid to diet. Any thing likely to excite urticaria, such as starches and sugars, should be avoided, for the itching and irritation which accompany nettle-rash greatly aggravate eczema. Lime-water with milk is very useful; so are well-made broths and beef-tea. Tonics may be necessary to improve the appetite, and other medicines to improve digestion. Steel-wine and cod-liver-oil are powerful for food, and so, rightly used, is quinine. When there are great restlessness and sleeplessness bromide of potassium is of great service.

Chloral, I fear, is apt to cause itching of the skin in eczematous patients, but it answers sometimes. If oxalate of lime be present in the urine, nitro-muriatic acid and bark are very useful. In some cases syrup of iodide of iron suits well, and may advantageously be alternated with other forms of iron or with the acids. In rickety and badly-nourished children attention to the bowels is well repaid. The old-fashioned rhubarb, soda, and gray powder answer admirably.

"When the general health appears good a different line of practice is called for. Here great attention to diet is necessary, error usually lying in the direction of excess, and especially in the matter of nitrogenized food. Lithates or oxalate of lime in the urine indicate potash or lithia and nitro-muriatic acid. An occasional purge of calomel and jalap, or of sulphur, is very useful. Sometimes nothing answers so well as a combination of one to one and a half grains of calomel with ten grains or more of sulphur precip., and especially if there be bronchial irritation. The exhibition of decoction of hop and *triticum repens* answers admirably in some cases. Now and then opium and belladonna may be required. It is in this class of cases that the preparations of arsenic yield the best results; that is, in cases of long duration, when there appears to be some constitutional vice at the bottom of the matter, and but little evidence of failure of the general health.

"Veiel believes arsenic to be most useful in those skin affections which are accompanied by infiltration of the cutis, such as we have seen occurs in long-standing eczema. When there is any suspicion of a syphilitic taint Donovan's solution is an excellent remedy. In a few cases of eczema cantharides may be successful, but they require very cautious use, and are of restricted application. For my own part I very rarely use them. Here and there a case will yield readily to antimony, which appears to be indicated in well-nourished and firm-fleshed children, whose skins are harsh.

"*Local Treatment.*—Perhaps for no disease of the skin have so many things been devised for external application as for eczema, and the great value of some of them has led to the belief that they alone suffice for its cure. This is the view of Hebra and others of the Continental schools, but it is one to which I can not subscribe. In my judgment success is best achieved by a judicious combination of both methods, though certainly the results of simply local medication are oftentimes very striking, and occasionally I restrict myself to it.

"Our first aim as regards local treatment is in most cases to soothe. For this purpose I recommend washing with fine almond- or oat-meal and water. Soap, as a rule, is interdicted. Decoction of poppies or marshmallow may sometimes be profitably substituted for water, but the oat-meal should never be cooked. After gentle drying various things may be applied, according to the indications. Thus, if there be much irritation and exudation, dusting with fine oxide of zinc through muslin is very soothing; so is bismuth (the old-fashioned trisnitrate). Occasionally the addition of a little tannin to the foregoing or to starch powder is very serviceable. Tannate of glycerine often answers admirably. With many skins greasy things disagree. This may be owing to the decomposition of the fat by the alkaline exudation. Perhaps for all eczematous eruptions nothing equals the white precipitate ointment. It is in my experience an admirable remedy. I think it suits best when the white precipitate is added to benzoated zinc ointment. I have never seen any ill results follow its use, even when applied for prolonged periods. The preparations of tar are at times of striking use; probably they are most useful in chronic cases accompanied by much thickening of the skin. Lotions containing lead will often give satisfaction. They may be combined with morphia or hydrocyanic acid, though usually it is not desirable nor is it necessary to resort to these drugs in children's practice. Now and then lotions containing glycerine relieve, but more commonly they cause much pain. This is probably due to the affinity of glycerine for water, which it abstracts from the tissues. Lotions of carbonate of soda or borax are frequently useful, and a little wine of opium goes well with them. In limited but sharp eczemas a curd made by adding liq. plumbi to milk often relieves. So will calomel ointment when the eruption is around the anus. When the hands or eyelids are attacked citrine ointment is useful. Glycerine of tannin, already mentioned, in some cases acts like a charm, and may be well applied by means of a camel's-hair pencil. It is sometimes necessary to muffle the hands of young children who suffer with eczema of the face, since by their scratching they greatly aggravate and keep up the disease.

"It can not be doubted that sometimes the recession of eczema is followed by bronchitis, and mothers are occasionally fearful of bad consequences from the cure of the skin-affection. In such cases considerable care is requisite, and any tendency to chest complication should, if possible, be warded off by bringing into play another set of emunctories; *e. g.*, those of the intestine. It is in cases of this description that antimony is very useful. It is well at the same time to give frequent doses of aperients if the antimony does not act as such; and I have been best pleased with the sulphur and calomel purge, ten grains or more of the former and one or more of the latter."

The same writer, in regard to the *Treatment of Impetigo*, says: "No disease of the skin yields more gratifying results than this. The first thing to be aimed at is the improvement of the general health; and as the patients are usually the subjects of scrofulosis, and not unfrequently rickety, this is best accomplished by improving the diet, by change of air, and by the exhibition of cod-liver oil and steel-wine. Quinine is also extremely useful in this disease. It can readily be added to vinum ferri. Now and then the syrup of iodide of iron suits well, and especially if there be otorrhœa. Attention should also be paid to the bowels.

"Locally, as a rule, it is best not to attempt to remove the crusts by poulticing, etc. They will soon come off under appropriate treatment, and no time is lost or pain caused by attempts at their premature removal. The application of an ointment consisting of ten, fifteen, or twenty grains of white precipitate to an ounce of zinc ointment is attended by brilliant results. The effect of this ointment is very striking. It should be applied twice or even thrice a day. The scalp should always be searched and the hair cut off from and around all suspicious spots.

"The skin may be cleansed by oat- or almond-meal and water, made of the consistence of thin cream without boiling. No danger need be apprehended from the white precipitate. In many hundreds of cases I have never seen any evil results or sign of absorption follow; on the contrary, its use has been attended by the most gratifying results. This preparation of mercury is not readily absorbed from the skin, and besides, its use is rarely required for more than a very short time. Occasionally, and especially in the presence of pediculi and their nits, the use of an ointment composed of equal parts of white precipitate and sulphur ointment is preferable and answers well."

INTERCOSTAL NEURALGIA IN WOMEN.—Dr. M. Fothergill remarks that this is a very well-marked form of neuralgic disease, and is very common. It belongs to the reproductive period of women's existence, is troublesome and intractable, and almost always associated with leucorrhœa, amenorrhœa, or menorrhagia, or it occurs in women who are suckling. The treatment he recommends is a combination of stimulants and tonics, especially carbonate of ammonia, with the ammonio-citrate of iron in an infusion of quassia. After a short time this may be advantageously changed for sulphate of quinine, muriate of iron, and quassia. In other cases Dr. Ferrier's plan of administering gentian and rhubarb mixture may be adopted, especially when symptoms of gastric derangement are found. Belladonna plasters and mustard plasters may also be applied over the tender parts which usually correspond with the origin of the sixth intercostal nerve. Special attention should be paid to the leucorrhœa, and cold baths, spongings, or injections ordered. Menorrhagia should receive suitable treatment, and suckling discontinued. (The Obstetrical Journal.)

TREATMENT OF SEBACEOUS TUMORS OF THE SCALP.—Mr. Tyrrell, in concluding a paper (Dublin Journal of Medical Science) on the surgery of the head, says in reference to sebaceous tumors: "1. That those which occur at birth or in early infancy should be removed without delay, as experience proves such tumors have a tendency to cause destruction of the bone and to perforate the skull; 2. That the ordinary sebaceous tumors of the hairy scalp do not cause absorption of the bone; 3. That when a sebaceous cyst ulcerates a spontaneous cure is not to be expected; 4. That when a sebaceous cyst ulcerates it should be entirely removed as soon as possible; 5. That the ordinary sebaceous tumors may remain harmless for an indefinite time, and do not necessarily grow larger from day to day; 6. That the surgeon should not operate on them unless the patient is in good health, and after a careful examination, particularly of the urinary organs; 7. That for removing such tumors the knife is preferable to caustic; 8. That external applications and internal remedies are worse than useless."

CAUSTIC LIME IN THE TREATMENT OF ONYCHIA MALIGNA. Professor Vanzetti, well known on account of the method so strongly advocated by him of the cure of aneurism by digital compression, proposes a new method for the cure of onychia maligna. He has furnished convincing proofs of the efficacy of this plan in a monograph on the subject recently presented to the R. Istituto Veneto. In this he laid down the principle that the true and chief seat of the disease is situated in and limited to the matrix of the nail. He tried the application of the nitrate of lead recommended by Moerloose, who described twelve cases treated by this means successfully. He thought he could still improve upon this by using some substance which would absorb and dry up the pus, and accordingly tried quicklime upon two patients who presented themselves at the hospital with onychia of the feet. In one the disease had developed spontaneously, in the other as the result of an injury. In one of the patients the lime was left in contact with the affected part without renewal; in the other it was frequently renewed. Both did well, with perfect reproduction of the nail. (*Lo Sperimentale*, Fasc. i, 1874.)

LOCAL TREATMENT OF CYSTITIS IN WOMEN.—Dr. Braxton Hicks (British Medical Journal) observes that in speaking of cystitis he means the more severe forms, such as that which, among other causes, arises from the effects of labor-retention, from malignant disease of the organ, or from paralysis, etc. General or constitutional remedies are in such cases of little service, but local treatment proves of great value. The only general treatment that may be used with advantage is opium or some other anodyne, and such corrective as may modify an alkaline state of the urine. Supposing it to be alkaline and ammoniacal, it is best to take a catheter made of gum-elastic, and open at the extremity as well as at the side, and after having well oiled it to pass it gently into the bladder for as short a distance as possible, and withdraw the catheter just as the bladder is on the point of being emptied, which saves the mucous membrane from flapping down on the end. Then with a syringe throw up through the catheter warm water slightly acidulated with either nitric, hydrochloric, or acetic acid. Vinegar does very well. If nitric or hydrochloric acid, about two drops of the strong acid to the ounce of warm water. As soon as the patient complains of desire to micturate, allow it to flow away again. This should be repeated till the bladder seems clear of the phosphates and mucus. About half a pint of acidulated water will generally suffice. Then inject also through the catheter about one grain of morphia dissolved in about an ounce of water; quickly withdraw the catheter from the urethra, and instruct the patient to retain it as long as possible. It is rare that the single application does not produce great relief. This treatment may be repeated twice daily if the case be very severe.

When the urine has not been markedly alkaline Dr. Hicks simply injects the solution of morphia, or first washes out the bladder with warm water or warm solution of permanganate of potash. After some days of this treatment he sometimes employs, instead of the permanganate of potash, a solution of chlorate of potassa, about three or four grains to the ounce; using plenty, drawing it off after a few minutes according as it gives pain, and then injecting the morphia. Regarding the dose of morphia, he adds that if there be no blood in the urine, and the patient feels no constitutional effects from a grain, he increases it to two grains. If blood appears in the urine, it is a sign of some abrasion, in which case the morphia is more likely to be absorbed; yet he has never seen any unpleasant symptom from two grains. The more that is used without affecting the system much the better, locally subduing the nerve-irritation and the tenesmus of the bladder, and the crushing of the mucous membrane which the contraction produces. As the acute symptoms subside more astringent washes may be employed, such as two or three grains of tannin, or three or four drops of solution of perchloride of iron in the ounce of warm water, using the morphia solution immediately after. The choice should depend on the amount of pain caused, the object being not to produce more than necessary. If the urethra be very tender, a bougie or catheter covered with tannin, made very smooth, and dipped in gum-water, may be introduced. A probe, on which a film of nitrate of silver has been fused, may be tried, or the surface may be mopped out with a piece of cotton dipped in perchloride of iron. In chronic cases a solution of nitrate of silver containing from five to ten grains to the ounce may be injected, followed by the introduction of two grains of morphia in solution. In the acute stages the warm hip-bath and warm sponge to the genitals are not to be omitted, together with perfect rest in bed. The bowels must be kept gently relaxed, and the diet should be simple and light.

Hydrate of Chloral in Trismus and Tetanus of New-born Children.—Dr. A. von Hüttenbrenner has made a trial of chloral hydrate in the above cases, and on the strength of his own experience, added to that of Steiner, Auchenthaler, Monti, etc., thinks he is justified in arriving at the following conclusions: 1. Tetanus is a disease which is not necessarily fatal. 2. The cause of the disease is febrile or not; in the former case it is but a partial manifestation of general poisoning of the blood; in the latter it consists of reflex spasms excited by peripheric irritation. 3. Prognosis is more favorable in cases unattended by fever, though it is not necessarily unfavorable in cases accompanied by fever. 4. Chloral hydrate is far from being a specific for tetanus, but its employment must be recommended because it is a pure hypnotic, which does not determine congestion of the brain as morphia does, is easily administered to children, and finally has been undoubtedly successful in a great many cases. *(Jahrb. d. Kinderheilk.)*

Notes and Queries.

Abernethy and Pennington.—We find the following in Mr. Clarke's Autobiographical Recollections of the Medical Profession: "Pennington and Abernethy were dressers at the same time to the celebrated Percival Pott, and each claimed precedence. Pennington was certain that he was entitled to be first, but for some time, in order to avoid a quarrel, gave way to Abernethy. On one occasion, however, Johnny carried his presumption a little too far. Pott was crossing the quadrangle, followed by the students. He was giving a kind of running 'clinique' on a case in which Pennington was deeply interested, and, anxious to hear all that was said, he stuck close to the teacher. Abernethy came up and absolutely elbowed him out of his position. Pennington then found that it was time to put a stop to his impertinence, particularly as the insult was given in the presence of so many of the fellows. He took no notice of it at the moment, though the circumstance did not escape the observation of Mr. Pott. Immediately on the conclusion of 'the round' Pennington made up his mind to act, and accordingly in the presence of a number of students addressed Abernethy, 'Jack, this won't do; I have given way to you too long, and for the future you must be content to play second fiddle.' Abernethy began to bluster and use strong language. At that time disputes of the kind were settled in a summary way, and Pennington immediately prepared to assert his right by an appeal to the fist. The place of combat was in the corner of the ground which is near the Anatomical Theater, and thither they repaired, followed by anxious and admiring *confrères.* Pennington took off his coat and prepared for action. Jack did not follow suit; in fact he declined the ordeal of battle, and Pennington was for the future first. They were closely associated for nearly fifty years afterward, but never had an angry word. Dining together some forty years after, in Bedford Row, the old quarrel between them accidentally cropped up. 'Well,' said Abernethy, 'the truth of the case was this: the moment I saw you uncover your biceps I was certain I should be thrashed; and so, my boy, I surrendered at discretion.'"

TO PHYSICIANS.—The following letter has been received from Dr. Hale, of Owensboro, Ky., and will, we hope, elicit the information he seeks:

"*Dear Sir*—I am preparing a report on 'Glioma of the Retina,' to be read before the Kentucky State Medical Society at its annual meeting in April, 1875. I design embracing in said report the observations of the profession in this country so far as they can be obtained. I desire a brief history of each case, the treatment and final result. Any information you may give me on the subject will be thankfully received and embraced in the report.

Respectfully, J. HALE, M. D.,
Owensboro, Ky.

THE AMERICAN PRACTITIONER.

OCTOBER, 1874.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Communications.

ADDRESS IN OBSTETRICS AND THE DISEASES OF WOMEN AND CHILDREN.*

BY THEOPHILUS PARVIN, M. D.

In making *Uterine Hemorrhage* my subject I trust the spirit, though not the letter, of the law instituting these addresses will be fulfilled. The letter of that law demands a chronicle, an abstract of all the discoveries and advances that have been made during the twelve months immediately preceding in the three departments of practical medicine which this section includes. But in addition to the inherent difficulties of such a labor—collection, connection, and condensation—evolving completeness and harmony from isolated, sometimes apparent, sometimes discordant facts, making of these *disjecta membra* a living unity, such as uttered words should be, even were its performance possible by me, it would be a most uncongenial work, and its attempt an unwarrantable assumption of your ignorance of current medical literature.

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* Delivered before the American Medical Association, in June, 1874.

In considering the subject announced, a subject which at once includes the two major and naturally connected departments of the section, some of the most important therapeutic questions now occupying the professional mind will necessarily be presented.

Regarded in its anatomical relation, *uterine hemorrhage* may be divided into *interstitial*, *peritoneal*, and *mucous*.

Hemorrhage into the tissues of the uterus, as a rule, according to Klob,* occurs only in aged females, while Dr. Graily Hewitt † speaks of it as an occasional event in parturition. Cruveilhier, ‡ under the title of *apoplexy* of the uterus, describes it fully, making three divisions of it, according to the muscular layers affected, its cause generally being degeneration of the arteries, while the hemorrhage to which Dr. Hewitt refers is properly an ecchymosis. In certain dyscrasiæ too hemorrhage into the substance of the uterus may occur, and this independent of the arterial degeneration mentioned, or of violence. But this variety of hemorrhage is of interest only to the pathologist, and we pass on to the second, *peritoneal*.

Three forms of peritoneal uterine hemorrhage will be at once conceded; viz., *traumatic* and *two consequent upon inflammation*, the one an immediate, the other a remote result. Mentioning the first is sufficient, for the cause is obvious, and the consequence frequently demonstrated.

Acute inflammation may cause hemorrhage. Dr. Barnes remarks, § "Whatever produces hyperæmia predisposes to hemorrhage; thus inflammation takes a high rank as a cause of hemorrhage." And Dr. Druitt, in his article upon *inflammation*, observes, || "There is no severe inflammation which may not be attended with hemorrhage." Hence inflammatory congestion of the pelvic peritoneum, that which invests

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* Pathological Anatomy of the Female Sexual Organs.

† Transactions of the London Obstetrical Society, vol. ix.

‡ *Anatomie Pathologique.*

§ Diseases of Women.

|| Cooper's Surgical Dictionary.

the uterus included, may thus directly cause hemorrhage. Virchow (Pathology of Tumors) remarks that in consequence of inflammatory processes in the pelvic cavity there results a pathological vascularization, and extravasation may occur from the false membranes of retro-uterine peritonitis. In this we have an illustration of the process by which hemorrhage is the remote consequence of inflammation. Further, Desprez,* explaining the way in which hemorrhages may occur after inflammation of serous membranes, remarks that under a renewal of the inflammatory process the neomembranous formations soften, and the newly-formed vessels, thus losing their supporting investment, either ulcerate or otherwise are unable to resist the interior pressure of the blood.

Furthermore, can we recognize as actual or possible an acute exhalation of blood from the pelvic peritoneum, as some of the observations of Voisin would seem to show, though such an origin of uterine hematocele is regarded by Bernutz † as altogether problematical? Knowing how many and how various, so far as structure and function are concerned, the tissues and organs that are the avenues for vicarious menstruation, there does not seem any antecedent improbability in the supposition that the pelvic serous membrane, and especially its uterine portion, might be such an avenue.

Still more, connected with the suggestion just made as to a possible cause of uterine hematocele, may not such an effusion have its origin in malarial poisoning? Certainly a case under my observation a few months since seemed to have such poisoning as a factor—I will not say *the* factor—in its production. If uterine hematocele may be caused by lumbo-abdominal neuralgia, ‡ as a recent observer has shown, how much more probable the cause I have suggested, while the explanation of its action is quite as obvious.

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* *Nouveau Dictionnaire de Médicine et de Chirurgie Pratiques*, vol. xvii.

† *Nouveau Dictionnaire;* article, "Hematocele."

‡ *Archives Générales*, July, 1873.

But whatever the source of the hemorrhage, the quantity in the vast majority of cases is in no wise perilous, and generally the function of the physician is limited to the control of the resulting peritonitis, which in the encystment of the effusion accomplishes a beneficent purpose; but, not attaining this end, may be quickly mortal.

The third variety of *uterine hemorrhage*, which for convenience has been designated *mucous*, is vastly the most frequent, the most important, and the most complex as to etiology and therapeutics.

The monthly congestion to which the uterus is subject, and which terminates in hemorrhage from the ruptured vessels of its mucous lining—physiological hemorrhage—is a powerful predisposing cause of pathological hemorrhage.

In the study of the causes of the latter we may conveniently consider them under three headings—*traumatic*, *dyscrasic*, and *congestive*, or mechanical.

The unimpregnated uterus is little exposed to direct accidental traumatism.* Guarded by walls of bone, and these walls rendered a still better protection by muscular and other investment on either side, still other defense is found for this organ in its interposition between the bladder and rectum, which in their varying states of distension are greater or less hinderance to exterior injury; and besides, the elastic supports of the uterus—firm enough to hold it in normal position, lax enough to accommodate the varying condition as to repletion or vacuity of neighboring organs—ordinarily secure its exemption from injury in blows or shocks or falls the body may receive. Hence it is almost invariably the case, when the uterus does receive such violence as suggested, the injury done it is minor in comparison with that done to those structures intervening for its protection.

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* "*La nature semble avoir épuisé ses ressources pour mettre l'uterus à l'abri du traumatisme.*"—*Genése et Etiologie du Hémorrhagies Uterines*, by Dr. J. Bougon, Paris, 1873.

Dr. Bougon has mentioned physiological traumatism as a cause of uterine hemorrhage. But really when coition—for this is referred to—produces such results the uterus is excessively congested, as at the commencement of menstruation, or from disease, or from dislocation, or there may be ulceration, etc., or there is a chlorosis or other blood disorder, which, not only from a deteriorated quality of the blood, but from weakened walls of the vessels, facilitates hemorrhage, and the cause first mentioned is but one of the factors in its production. And still further, when *excessive* coition is followed by metrorrhagia, the latter is to be attributed oftener to vaso-motor paralysis than to traumatism.

Intentional traumatisms are not unfrequently causes of uterine hemorrhage; *e. g.*, leeching the cervix, the application of caustics, uterine catheterism, incising the cervix; various other operations, such as removal of tumors, amputation of the neck, etc. Nevertheless, in regard to some of the causes, their action is not direct; thus, cauterizing the uterine neck or cavity may cause hemorrhage purely by reflex action, while others are not isolated and independent in their action; *e. g.*, leeching the cervix is not ordinarily followed by excessive flow of blood, but such flow may then ensue if there be hepatic congestion; and Dr. Bennet,* illustrating the relation between such congestion and uterine, remarks that these were the only cases he had observed where leeching caused "an almost uncontrollable hemorrhage." Exploration of the uterine cavity with a sound, if a cause of hemorrhage, simply furnishes the evidence of disease.

Dividing a strictured cervix is not always an innocent operation, even when done by the most skillful. Nor are incisions in the cervix, advised in certain cases of uterine inversion, and first performed by Dr. Robert Barnes,* exempt from the peril of hemorrhage, as the case narrated by Dr. Thomas illustrates.† Dr. Barnes advises two incisions, one on each side of the os, and speaks of having made them "about one third of an inch deep." Courty directs one anteriorly and one posteriorly, or three equidistant; a practice that is probably safer, considering the arrangement of the blood-vessels of the uterus, than the lateral incisions of Dr. Barnes. So too the propriety of incisions "about one third of an inch deep" may be at least doubted when we remember that the thickness ‡ of the cervical wall in the virgin is rather less than half an inch, and would not in a case of chronic inversion greatly exceed this measurement.

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* Uterine Inflammation.

Operations upon the cervix in case of pregnancy may be followed, as would be readily suggested, by more than ordinary hemorrhage, and may cause abortion or premature labor. Nevertheless the rule is not absolute; a polypus that has caused little or no bleeding may be removed, with the probability that no considerable hemorrhage will follow, and that gestation will not be at all disturbed.

While mentioning this topic let me refer for a moment to a very interesting monograph by Massot, entitled "The Influence of Traumatisms upon Pregnancy." In it the author has collected two hundred and fourteen cases of injuries occurring to, or of surgical operations performed upon, pregnant women; some of these injuries or operations involving the uterus or contiguous organs; some of them of a most serious character, such as severe contusions and fractures, ovariotomies, amputations, ligation of large arteries, etc.; and his conclusion from an analysis of these cases is that traumatisms do not interfere with gestation, except those that materially or for a length of time disturb the uterine circulation or call into action uterine muscular contractility.

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* In his memoir in the Medico-Chirurgical Transactions, 1869, Dr. Barnes remarks, "For twenty years I have taught in my lectures that the unyielding cervix may be divided by incisions carried into its substance from above downward at different points of its circumference. Pressure then applied will cause it to yield more easily. Hugnier, Professor Simpson, and Dr. Marion Sims have suggested the same plan." This plan was first executed by him in 1868.

† Diseases of Women (third edition), p. 430.

‡ Savage on the Female Pelvic Organs. See also remarks of Dr. Savage, London Obstetrical Society's Transactions, vol. vii, p. 141.

Both of our eminent countrymen, Sims and Atlee, have performed ovariotomy in pregnancy without gestation being interrupted, and Spencer Wells[*] has had four successful cases in similar circumstances; so that the rule which Gallez[†] gives, that pregnancy constitutes an absolute contra-indication to ovariotomy, since the operation invariably causes abortion, is too positive. It would astonish good old Mauriceau could he waken from his more than two centuries of quiet sleep and witness one of these great operators perform ovariotomy;[‡] perform it upon a pregnant woman, and she live and complete her gestation, when he had already thus discoursed upon a cause of abortion: "A great Noise"—I am quoting from Hugh Chamberlen's Translation, published in London in 1727—"suddenly and unexpectedly heard may make some women miscarry, as the Noise of a Cannon, and chiefly thunder-claps; and yet more easily, if to this Noise be added the Fear they usually have of such Things, which happen rather to the young than elderly Women; because, their Bodies being more tender and transpirable, the Air, which is strongly forced by that Noise, being introduced into all her Pores, offers a great Violence by its Impulsion on the Womb, and on the Child within it; which the elder, being more robust, thicker, and closer, resist with more Ease."

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[*] London Obstetrical Society's Transactions, vol. xiii, p. 281.

[†] *Histoires des Kystes de l'Ovaire*, etc. Brussels, 1873.

[‡] Very possibly the old accoucheur would, with one of his countrymen of the present day, put such operation in the domain of *chirurgie terrible.* Joulin, in his *Gazette Obstetrique Gynecologie*, April, 1873, uses the following language: "*Il y trente ans on ne connaissait que deux sortes de chirurgies; la grande et la petite. Depuis quelques années on a vu surgir une classe d'operations nouvelles que, en raison de la hardiesse des opérateurs et de l'effrayante étendue du traumatisme, on pourrait intituler:* la chirurgie terrible."

Returning from this digression, in the ninth volume of the London Obstetrical Society's Transactions Dr. Graily Hewitt has reported a case of fatal hemorrhage from an extraordinary cause; to wit, traumatic aneurism of the uterine artery.

The traumatisms that occur in abortion or in parturition may be sources of hemorrhage. Van Swieten first compared the recently-delivered woman to one having undergone an important amputation; the late Sir James Simpson expanded this idea in the analogies he pointed out between surgical and puerperal fever; while Pajot speaks of the detachment of the placenta producing "a physiological wound." Not only in this case there may be, but from premature detachment of the placenta, either accidental or necessary, there must be hemorrhage more or less grave.

After parturition hemorrhage is prevented by what has been termed the *retractility*—as distinguished from the *contractility*—of the uterus, a property which does not inhere equally in all parts of the organ, and which Dr. Dewees taught belonged especially to the inner of the three layers into which anatomists have divided its muscular structure; but which, as Dr. Chantreuil * asserts, is rather to be attributed to the middle coat, which is thicker at the fundus, the usual placental site; thus explaining the fact that a greater hardness is detected by the hand applied over it after parturition than by the finger applied near the os; and also the fact that there is a greater liability to post-partum hemorrhage whenever the attachment of the placenta has been otherwhere than that mentioned as the normal one. Now whatever hinders this *retractility*, retention of placenta, or clots, inertia, etc., is the cause of hemorrhage.

Hydatiform degeneration of the placenta has no more constant symptom than hemorrhage. Post-puerperal hemorrhage is most frequently caused, as pointed out by Joulin,† by the weak condition of the blood-vessels prior to the com-

**Du Application de l'Histologie à l'Obstetrique.*

†*Traité des Accouchements.*

plete regeneration of the mucous membrane that has been cast off. The epithelial layer which should protect these vessels is not visible until about the ninth day after delivery, and is not completely restored until the twenty-fifth day, or even later. Of course, any unusual exertion, straining, or lifting, even being on the feet too soon or too long, may under such circumstances be the exciting cause of the flow; and it is obvious the first, possibly the only, therapeutic measure required will be *rest*.

Other forms of traumatic hemorrhage are found in ruptures of varices of the cervix, or of the cervix itself, or of the body of the uterus, and in injuries inflicted in attempts at criminal abortion. But with this brief allusion I pass on to refer for a moment to *dyscrasic* hemorrhages.

In hæmophilia, according to Lebert and Tardieu, there is an important alteration in the blood; and while this disease is more frequent in the male than in the female—seven to one—it may occur in the latter under the form of uterine hemorrhage. Even the first sexual congress has caused a mortal flow of blood. A fatal case of metrorrhagia in purpura has been recorded by Barton.* So too in scorbutus, in chlorosis, in lead-poisoning, etc., hemorrhage from the uterus has been observed; and Bernutz has directed attention to metrorrhagia as frequently occurring in syphilitic women when under mercurial influence.

Now in these and similar cases it is not the altered condition of the blood that is the direct factor in the production of the hemorrhage. This red river of life that bears nutriment to every part of the organism is constantly washing away its banks, and, if it bring no suitable material for their repair, the weakened conduits readily rupture under any unusual pressure of their contents. Gubler† has collected a number of cases to show that very many metrorrhagias, regarded as anticipated menstruations at the commencement and in the progress of acute maladies, are simple uterine fluxes, similar to the initial epistaxis of fevers, and he designates them *uterine epistaxes.* The facility of the occurrence and the abundance of the flow are in relation to the intensity of the disease, with the predominance of determination to the hypogastric organs, with the tendency toward a dissolved condition of the blood and the *ramollissement* of the tissues, whence the hemorrhagic diathesis proceeds; and Raciborski * speaks of disposition to uterine hemorrhages being inherent in eruptive fevers.

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* Edinburgh Monthly Journal, 1841.

† *Des Epistaxes Uterines simulant les Regles.* Gubler's collection of cases might well have contained the following from Sydenham: "Not long ago a very virtuous and noble lady was committed to my care who had the dangerous black

Uterine congestion resulting in hemorrhage may be active or passive; either too much arterial blood is thrown into the womb or venous return is hindered. The immediate cause may be in the organ itself; some disorder of position or of structure, or in an organ contiguous or remote.

Disease of the heart (especially of the mitral valve), of the liver, abdominal tumors, etc., may be causes of metrorrhagia. Tilt † has directed attention to the relation between ovaritis and menorrhagia; and Gallard ‡ states that the latter is the most frequent menstrual disorder induced by this disease. Uterine inflammation is a frequent cause of hemorrhage, but it is when this inflammation is mucous, not parenchymatous; for amenorrhœa results from the latter, especially when it has continued for a length of time, the hyperplasia of the connective tissue terminating in sclerosis. In two thirds of the cases of cancer of the uterus, according to Louis, the

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small-pox; and though at the beginning I forbid all those things that might exagitate the blood, yet she being of a very sanguine complexion and brisk and young, the season of the year being very hot, she was seized of a sudden on the third day after the eruption with so large a flux of the courses at an unusual time that the women that were by thought she miscarried; but though this symptom continued violent for many days," etc. (*Of the Irregular Small-pox in the Years* 1670, '71, '72.)

* *Traité de la Menstruation.*

† Uterine and Ovarian Inflammation.

‡ *Leçons Cliniques sur les Maladies des Femmes.*

first indication of the disease is hemorrhage. Uterine tuberculosis also causes hemorrhage. Pelvic peritonitis, especially that variety of it designated menstrual, according to Bernutz, causes menorrhagia. Various uterine displacements cause hemorrhage, but I have not time to dwell upon their mutual relation.

To only two other local causes of uterine hemorrhage—to wit, uterine polypi and fibroids—shall I refer. How do uterine polypi cause hemorrhage? is a question to which very different responses have been given. Klob* remarks that these growths are often exceedingly vascular, and very small ones may give rise to fatal hemorrhage. He teaches that the hemorrhage is from the polypus. Gooch held the same view, stating that as soon as a ligature was applied to the pedicle the flow of blood ceased. The teaching of Barnes is similar as to the source of the blood.

On the other hand, Boivin and Duges assert that the vessels of the polypus are too small to furnish so much blood; that it comes from the uterine sinuses. In their work too this important fact has been noted—a fact which, I believe, has been neglected by recent authors—that the nearer a polypus is to the fundus the greater the hemorrhages; but these diminish with the elongation of the pedicle and the descent of the tumor.

McClintock† states that, notwithstanding the hemorrhage almost invariably ceases upon the strangulation of the tumor, there is good reason for thinking that the blood comes, in great part at all events, directly from the interior of the uterus. The polypus, as an irritant, is a source of uterine hyperæmia, often a hyperæmia followed by inflammation, as shown by new adhesions between the tumor and the womb—secondary pediculization—which, I believe, are not unseldom found.

The fact that Gooch alleges as a conclusive proof that the hemorrhage is from the polypus—viz., tying the pedicle stops the flow—is not without occasional exceptions; and besides, it is susceptible of this explanation: the ligature destroys the vitality of the growth; that vitality which invited thitherward, not only to itself but to the uterus, an increased flow of blood.

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* Op. cit.

† Diseases of Women.

It is not surprising that the hyperæmic condition of the uterus induced by a polypus should be relieved by attacks of metrorrhagia.

Fibroids, submucous or interstitial, cause hemorrhage by the increased quantity of blood they invite to the uterus, by the altered condition induced thereby in its lining membrane, and by the hinderance which their direct pressure causes, or that of the uterine distortion or displacement they have induced, to venous return.

In briefly considering the *therapeutics of uterine hemorrhage* the third variety of this disorder only will be referred to.

While it is true that metrorrhagia is a symptom, and that with the removal of the cause this effect ceases, yet very often direct means must be promptly used to stop the flow of blood; otherwise, while limiting our efforts to the removal of its cause, the patient will die.

It is important to recognize and avail ourselves of the preventive treatment. Physiological and mechanical rest, for example, for the uterus disposed to bleed excessively at a monthly period are all-important. Physiological rest likewise should be insisted upon for this organ when the seat of cancerous disease. So too the more general use of the electro-cautery in uterine surgery,* as a substitute for knife or scissors, is to be considered an important advance in no respect more valuable than in the prevention of hemorrhage. A bloodless surgery is alike less perilous and less terrifying to the patient.

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* See Clinical Notes on the Electric Cautery in Uterine Surgery, by J. Byrne, M. D. William Wood & Co., New York, 1873.

In obstetricy we may prevent the hemorrhage which otherwise might ensue from placental retention by securing prompt delivery of the placenta—a prompt delivery before the os has contracted, hindering its extrusion; a prompt delivery in the later months or at the full term of pregnancy—by the method known as Credé's, and in earlier months ordinarily by keeping the os well dilated with two fingers of one hand, then hooking them over the placenta, as Mauriceau has quaintly expressed it, like "a crab's claw," while with the other hand upon the hypogastrium the uterus is pressed down upon the fingers.

But hemorrhage once established, how is it to be arrested? I confess to no faith in astringents internally administered for this disorder. After rest, position, and cold, I believe the most valuable of uterine hæmostatics are quinia and ergot; the former chiefly in what has been termed atonic menorrhagia, the latter in the metrorrhagia consequent upon fibroids. In order that benefit shall result from quinia it ought to be given in doses of at least from four to six grains every three hours, until the patient is decidedly under the peculiar nervous influence of the remedy, or until the flow is materially lessened. The action of quinia under these circumstances is no proof of this agent having a special influence upon the uterus, for it has also been used successfully in other hemorrhages; *e. g.*, hæmoptysis.

The anti-hemorrhagic application of ergot in obstetric practice I omit; and indeed only one of those in the treatment of uterine hemorrhage occurring unrelated to the puerperal condition will be referred to. The hemorrhage in submucous and interstitial fibroids has been arrested by freely incising the os uteri; a plan alike proposed by Baker Brown, Nélaton, and McClintock. A similar result will sometimes follow dilatation with sponge-tents, or from intra-uterine injections of tincture of iodine and water, as advised by Dr. Savage, or of solution of iron salts. Ergot administered by the mouth has long been recognized too as of great value in such circumstances; but its hypodermic use, as advised by Hildebrandt, is far more satisfactory, and is one of the most important therapeutic applications in recent years. Not many years ago Dr. Robert Fergusson, adopting the language of Dupuytren, declared all these tumors "inoperable." Twenty-two years ago an eminent member * of this association—one of the great ovariotomists, not only of this country but of the age—demonstrated that they were operable, a demonstration which has been further strengthened by the recent brilliant operations of Dr. Sims.† However, operations are not possible in all these cases—nay, not in the majority—while the hemorrhage the growths cause is the great peril. That peril is best prevented by hypodermic ergot. In 1869 Langenbeck had shown the benefit of ergot thus used in two cases of aneurism; and two or three years ago Hildebrandt published the extraordinary results he had obtained in uterine fibroids by a similar use of ergot. Since that time numerous reports have appeared in medical journals, both at home and abroad, in the main confirming the deduction of his experience; an experience which has been enlarged since his first publication, but not changed, as will be seen by a note from him published in the last number of the American Journal of Obstetrics. As advised by Dr. Squibb, the best form of ergot for hypodermic use is obtained by first properly evaporating the fluid extract to a solid, and dissolving this product in water in such proportion that one minim of the solution shall be equivalent to one grain of ergot. In my own practice I have used an injection of fifteen to twenty minims daily, and it is exceptional when there is not a diminution of the growth or growths within a week. Charles Hunter, in his article upon *subcutaneous injections*, in the recent edition of Cooper's Surgical Dictionary, asserts this rule: "All fluids should have such a strength that five minims should contain or exceed the medium dose;" a rule that is utterly needless and impossible to follow in this case.

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* Dr. Atlee.

† New York Medical Journal, April, 1874.

Not only is there a diminution in the uterine enlargement in the majority of cases from hypodermic ergot, but, *pari passu*, a marked diminution in the hemorrhage. This plan of treating these growths meets better than any other the course Cruveilhier advised, and which he properly termed *traitement atrophique*.

Astringent injections into the uterus for the arrest of post-partum hemorrhage have recently been the subject of earnest and not always unimpassioned discussions, especially when the injection of a solution of perchloride of iron has been the topic, a treatment of which Dr. Barnes has been the great advocate, though not the originator. Cold-water injections into the uterus have been favorably spoken of by many of the older obstetricians; but Guillon [*] was the first, I believe, to employ an astringent injection. In 1825 a decoction of oak-bark was successfully used by him in hemorrhage from inertia; and nearly thirty years ago some English practitioners [†] made use of tannin injections for a similar purpose and with like success. In a note from Dr. Faye, Professor of Midwifery in the University of Christiana, published in the May number of the Obstetrical Journal of Great Britain and Ireland, it appears that the use of perchloride of iron in post-partum hemorrhage is justly due to the late Professor d'Outrepont, of Wurzburg, who used it in the same manner as it is now used, and wrote about it thirty years ago. Dr. Barnes, in his third Lettsomian lecture, published in the Lancet, October 10, 1857, remarks, "I suggested some time ago the injection of sesquichloride of iron;" and refers to the fact that Dr. Schrier, of Hamburg, had related, in 1855, some instances in which this agent had been employed with success. And in a discussion in the London Obstetrical Society, in 1869, Dr. Rogers stated that he had used such injections for fifteen years; while Dr. Hall Davis said that he had made use of pernitrate, persulphate, and perchloride of iron for several years, and had found them equally efficacious. So much for the historical portion.

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[*] *Archives Générales.*

[†] Lancet, August, 1846.

That these injections have a wonderful degree of certainty in speedily arresting post-partum hemorrhage no one considering the cases adduced can doubt. But are they always safe? Now no number of successful cases, be it hundreds or thousands, will invalidate a single case where a fatal result has obviously followed such injection. I know that the advocates of this treatment claim that death was not caused by the injection; and yet I can not see how any unprejudiced physician can read the reports of the case of Dr. Heywood Smith and that of Dr. Bantock without being almost if not quite convinced that this was the cause of death.

Certainly such injections should not be used without obeying the instructions of their great advocate as to the strength of the solution, as to having the uterus completely empty of all clots and oval fragments, and as to having the os patent; nor, it may be added, are such injections advisable in secondary puerperal hemorrhage.

Joulin,* apropos to this topic, advises employing all possible means before resorting to so dangerous an agent; and most of us can adopt the language of Dr. Savage,† asserting that we "have never met with a case of immediate post-partum hemorrhage rebellious to the old-fashioned practice."

The subject of *transfusion*, more especially in puerperal hemorrhage, is just now attracting considerable professional attention. Mauriceau taught, "When a woman, new-laid, has flooding, and there be no piece of the burden or false conception or clot in the uterus, bleed the woman in the arm, not so much thereby to empty the fullness as to make diversion;" but modern therapeutics proposes to open a vein in the arm not to abstract but to impart blood.

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* *Gazette de Joulin*, April, 1873.

† Obstetrical Transactions, vol. xv.

A venerable friend in the profession, who has accomplished more than half a century of active labor, recently remarked that he had passed through two epidemics of electricity, and was now in the third, which he hoped to survive. The third epidemic of transfusion is now visiting us, the first being in the seventeenth century, and both of the others in the nineteenth.

Transfusion * is the translation of the blood of one animal into the circulation of another; but a similar introduction of salines, alcoholic fluids, or medicinal substances is *infusion.*

Dr. Ullersperger † asserts that "the idea and theory of transfusion, etc., appertain by full right to Magnus Pegel (1593–1604); that the operation was first performed on the hounds of the captain of cavalry, George de Wahrendorf, by a huntsman, who injected Spanish wine; that about 1538 it was proposed for man by the theologian Potter, who apprised several members of the Philosophical Society of it; and that the engineer, Christopher Wren, at Oxford, constructed the machinery which appeared to him most suitable, and afterward performed it on a dog." Dr. Aveling ‡ states that Dr. Lower first performed transfusion in England in 1665, making a communication by quills between the carotid artery of one dog and the jugular vein of another; and in November, 1667, the same physician, in conjunction with Dr. King, transfused the blood of a sheep into a man, the latter submitting to the operation for one guinea. John Denys, however, of France, preceded Dr. Lower and Dr. King, performing the operation either in June, 1667, or else in 1666, authorities differing as to the date. He successfully transfused in five cases, using the blood of calves or of lambs, entertaining extravagant notions as to the value of the operation; but finally one of his patients, a lunatic, upon whom he had thrice performed transfusion, died a few hours after being operated on the last time, really poisoned by his wife in all probability; but the opposition was so bitter,* and the excitement so great in consequence of this death, that Parliament decreed that any one performing the operation without the proposition having been made to, received, and approved by the Faculty of Medicine should be imprisoned; and thus a stop was put to transfusion in France for nearly two centuries.

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* Definition given by Dr. Barnes in Cooper's Surgical Dictionary.

† Prize Essay. Transactions of the Pennsylvania State Medical Society, 1867. It will be observed that in the historical statement given by Dr. U. the first operation was not transfusion at all, but infusion.

‡ British Obstetrical Journal, August, 1873.

A revival of interest in the subject of transfusion took place, at least in England, through the experiments and writings of Dr. Blundell,† about the middle of the first half of this century. He was the author of the *mediate* in contradistinction to the *immediate* method, which had been the sole one used for one hundred and sixty years, although asserting that "in performing transfusion there can, I conceive, be no doubt but that the blood ought to be transmitted by tubule merely when this method is practicable." Among Dr. Blundell's experiments were bleeding a dog to syncope and then restoring him by transfusion, and nourishing another dog for three weeks similarly; the first eleven days the transfusion was mediate, the rest of the time immediate. February 17, 1825, his first case of human transfusion occurred. The operation was done for puerperal hemorrhage, and was successful, although but four ounces of blood were used. Dr. Blundell's theory was that from half a pint to a pint of blood would be advisable; and he has remarked, in reference to post-partum hemorrhage, that of twenty women thus suffering nineteen would recover under ordinary means, but the twentieth would die without transfusion. It is worthy of note that in the successful cases then occurring the quantity transfused was often, if not always, very small. Thus two cases are reported in the Lancet, 1835, in one of which three ounces and in the other two ounces only of blood were used; facts which led the opponents of the measure to allege that the operation was useless, recovery taking place *post hoc* instead of *propter hoc*, and its advocates to state that the new blood acted as a stimulant to the heart. When we remember, according to Piorry, that one tenth of the weight may be lost by hemorrhage without a fatal result, while, according to Burdach, a loss of from one ninth to one fifth is instantly mortal, it does seem somewhat marvelous that two ounces of blood will, upon the theory of its supplying the loss, save life.

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* It is curious to notice in the history of transfusion and of infusion, both in France and elsewhere, the severity of censure on the one hand and the extravagance of praise on the other. It was alleged that "a man who had received the blood of an inferior animal in his veins becomes dull and loses his wit, and despoils himself of his proper inclinations and puts on those of that beast;" and moreover, from this use of sheep's blood, wool would grow on his body! On the other hand, "an old dog, on receiving a quantity of blood from a young one, did leap and frisk, whereas he was almost blind with age and could hardly stir before;" a dog whose history deserves to be retained in medical literature quite as well as that of the venerable horse (see Dr. Barker's paper on Transfusion, New York Medical Record, April 1, 1874) that immediately after transfusion got up and ate grass! Antony Nuck, 1692, mentioned delirium, mania, leprosy, syphilis, and cancer among the diseases for which transfusion was used. But the most extraordinary statement comes from a physician, 1716, as to the value of infusion. He had thereby not only cured his patients of various diseases, epilepsy among the number, but likewise himself of intermittent fever and of the itch! And yet this physician's name was not Ananias, but Parmannus! The statements of a doctor who is willing to take his own medicine, and who will acknowledge having the itch, are worthy of implicit belief.

† His "Physiological and Pathological Researches" were published in 1824.

In 1826 and in 1828 transfusion was twice successfully performed. In each case the hemorrhage succeeded abortion. In the first four ounces of blood were used, but in the second fifteen ounces.

Dr. O'Shaugnessy first advised the injection into the veins of saline solutions or infusions in cholera. Dr. Latta, of Edinburgh, first put the suggestion into practice, and in fifteen cases of cholera collapse had five recoveries. So too infusion has been successfully performed in puerperal fever by Dr. Taylor Smith, and in poisoning by aconite by Dr. Richardson.

Coagulation of the blood has been one of the difficulties in transfusion, and various methods have been resorted to to obviate this, among others the application of heat; but recently it has been shown by the experiments of Richardson and others that heat promotes coagulation. In 1834 Dr. Schultze recommended the intestine of a dog or calf, cutting it into pieces eight or ten inches long, tying one end of each piece, and thus making sacs into which the blood was received, and from which it could be taken by the transfusion syringe; his assertion being that blood could thus be kept in contact with an animal membrane for two or three hours without coagulation. Defibrination of the blood has been resorted to in many of the cases.

Where one of the inferior animals is made the blood-donor the transfusion is usually immediate, and made from artery to vein. So too transfusion where a human being is the donor may be immediate—from vein to vein—and the simplest instrument for this has been devised by Dr. Aveling.* Mediate transfusion may be with pure blood or with defibrinated blood. The apparatus of Leiter may be used in either case, as well as in the second method mentioned.

Many questions as to the respective methods, as to the kind of blood,† as to the quantity, etc.; as whether there is advantage in the suggestion of Dr. Richardson, adding ammonia, or adding phosphate of soda, according to Dr. Hicks; as to whether indeed infusion—infusion of liquid nutriment—can take the place of transfusion; what instruments are the best, etc.; are yet to be settled. But behind them all lies the question as to the utility of transfusion. Cazeaux gave but little credit to the operation when he wrote of its having been highly praised in England, where it seems to have succeeded several times; and Jacquemier went so far as to suggest that the reported successes simply proved that the operation could be performed without danger, and indicated his belief that it would soon fall into oblivion.

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* Both Dr. Aveling's instrument and that of Leiter were exhibited at the meeting of the section.

† Dr. Austin Flint, jr., in his remarks on Dr. Barker's paper (New York Medical Record, April 1, 1874), speaks unequivocally in favor of human blood.

But with so many facts in favor of transfusion, and these accumulating—in favor of it especially in puerperal hemorrhage [*]—it is worthy the careful investigation of every obstetrician, if not making it his duty to provide himself with the necessary instruments for the operation. In fifty-eight cases collected by Prof. E. Martin, cases dying from uterine hemorrhage, transfusion saved forty-six. The statistics of Dr. Drinkard [†] gave eighty-nine cases and fifty-six recoveries. Doubtless, if all the cases occurring up to the present time were collected, there would be twice or thrice as many.

In view of these facts we can, with Saboia, [‡] express a regret that transfusion occupies a doubtful place in obstetric art, or adopt the language of Leishman: [§] "Professional attention has of late years been so thoroughly awakened to the importance of this procedure that there exists in the minds of many experienced practitioners a strong hope and some confidence that obstetric mortality may in this way be in some measure reduced."

It certainly will be one of the noblest triumphs of our divine art when by an operation so rational, so simple, so speedy as transfusion we can rescue woman just when she has passed through the profound sorrow of parturition—just when she is entering upon the supreme joy of maternity—from otherwise inevitable death.

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[*] As far as I have been able to ascertain there has been in this country no successful case of transfusion for puerperal hemorrhage.

[†] Richmond and Louisville Medical Journal, January, 1872. Dr. Drinkard has tabulated one hundred and seventy cases of transfusion, but the number above refers only to those in which the operation was done for puerperal hemorrhage.

[‡] *Traité des Accouchements*, Paris, 1873.

[§] Obstetrics.

PROCEEDINGS OF THE AMERICAN PHARMACEUTICAL ASSOCIATION.

The American Pharmaceutical Association began its twenty-second annual session in this city, on September 9th, with an attendance of sixty-nine members, including all the officers except one of the vice-presidents. The association was organized for the transaction of business, in 1852, with a membership of nine. It has steadily increased in members, and now has nearly eleven hundred.

The aim of the association has been to unite the educated and reputable pharmaceutists and druggists of the United States in the objects enumerated below:

1. To improve and regulate the drug market by preventing the importation of inferior, adulterated, or deteriorated drugs, and by detecting and exposing home adulteration.

2. To encourage proper relations between druggists, pharmaceutists, physicians, and the people at large, which shall promote the public welfare and tend to mutual strength and advantage.

3. To improve the science and art of pharmacy by diffusing scientific knowledge among apothecaries and druggists, fostering pharmaceutical literature, developing talent, stimulating discovery and invention, and encouraging home production and manufacture in the several departments of the drug business.

4. To regulate the system of apprenticeship and employment, so as to prevent as far as practicable the evils flowing from deficient training in the responsible duties of preparing, dispensing, and selling medicines.

5. To suppress empiricism, and to restrict the dispensing and sale of medicines to regularly-educated druggists and apothecaries.

6. To uphold standards of authority in the education, theory, and practice of pharmacy.

7. To create and maintain a standard of professional honesty equal to the amount of professional knowledge of the association, with a view to the highest good and greatest protection to the public.

The association was called to order by the president, Mr. John F. Hancock, of Baltimore; and Mr. John M. Maisch, of Philadelphia, permanent secretary, assumed the duties of his office.

The first session was mainly occupied by the examination of the credentials of the delegates from the various pharmaceutical organizations represented, and closed with the reading of the president's address, an elaborate essay, containing many valuable suggestions. It was referred to a committee, with instructions to report such portions of the address as they might determine for future action of the association.

The following officers were elected for the ensuing year: *President*—C. Lewis Diehl, Louisville. *Vice-presidents*—Joseph Roberts, Baltimore; Wm. T. Wenzell, San Francisco; Aug. R. Bailey, Boston. *Treasurer*—Chas. A. Tufts, Dover, N. H. *Reporter on Progress of Pharmacy*—C. Lewis Diehl, Louisville. *Secretary*—Prof. John M. Maisch, Philadelphia.

The report of the Committee on Adulteration and Sophistication of Drugs was submitted by the chairman, Chas. Rice, and adopted and referred for publication. We append a few interesting extracts from this report:

> "It should be the aim of this association to stand guard over the quality of all substances relating to pharmacy, and to seek out and denounce all frauds. To do this properly a committee should not only gather all information obtainable from others, but should direct especial attention to some prominent staple articles, obtaining samples at various places, and carefully examining or analyzing them.
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> "To represent the actual state of the market samples should be purchased anonymously by confidential and discreet agents,

appointed for certain districts, say one for each state, who could send samples to said committee for examination.

"This plan is no doubt susceptible of improvement; but if it were carried out, it would in the course of time develop a central bureau for the detection of adulterations, and result in the establishment of a museum, with all the facilities and appliances for conducting the necessary experiments. Thus would be secured to our people a portion of the benefits which England derives from its 'adulteration act.'

"The report is divided into, first, crude drugs and commercial products; second, chemicals and pharmaceutical preparations; and third, miscellaneous substances. We shall, however, notice but few articles under the above captions.

"CRUDE DRUGS AND COMMERCIAL PRODUCTS.

"*Balsam of Fir.*—Under the name 'Oregon Balsam of Fir' an oleo-resin has during the last year appeared in commerce. Prof. Maisch could not trace this drug beyond New York. It is a thick, transparent, bright-brown liquid, of a turpentine and aromatic odor. On rubbing it between the fingers different odors become apparent, and last of all that of nutmegs. It is probably a solution of resin in oil of turpentine, flavored with the oil of *eucalyptus globulus* and the essential oil of nutmegs.

"*Balsam of Peru.*—Reference was also made to the Balsam of Peru as having been found adulterated with liquid storax.

"*Dandelion.*—Chiccory has been foisted upon the market as dandelion-root, and of that spurious article a so-called officinal fluid extract of dandelion had been prepared and sold for the genuine preparation.

"*Ginger.*—Attention was also called to samples of 'bleached ginger' (Jamaica ginger), which was found to be common or American ginger, white-washed, and dusted over with plaster of Paris.

"*Infants' Powder.*—What is commonly called 'infants' dusting powder' is often, instead of being the true lycopodium, nothing more than the pollen of the pine.

"*Linseed-oil,* as used for manufacturing printers' ink, has been found adulterated with cod-liver oil, previously made almost odorless.

"*Olive-oil.*—Much of the Italian olive-oil used for table purposes was said to be only fish-oil made at home.

"*Rhubarb.*—Reference was also made to rhubarb, of the common variety, being rubbed with turmeric to give it the fine light-yellow color of the Turkey species.

" CHEMICAL AND PHARMACEUTICAL PREPARATIONS.

"*Acids.*—In regard to the three mineral acids—nitric, muriatic, and sulphuric—the latter is the only one found generally pure. The impurities of the commercial acetic, citric, tartaric, and other acids were dwelt upon and clearly illustrated.

"*Citrate of Magnesia.*—The substitution, or at least admixture, of tartrate of soda is as common as ever. The necessity of accurate knowledge upon this and other matters, as insisted upon in England, was couched in an incident in the case of a druggist in Bermondsey, England, who, having a call for some granular citrate of magnesia, bought two pounds from a neighbor, and sold one fourth of a pound over the counter immediately. On analysis this was found to contain citric and tartaric acids, carbonate of soda, and sugar. His defense, that he sold it as he had bought it, and had had no time to analyze it, was of no avail, and he was accordingly fined ten pounds and costs.

"*Cream of Tartar.*—The usual impurities are still reported; among others, carbonate of magnesia, salt, and starch.

" MISCELLANEOUS SUBSTANCES.

"The British papers and journals are full of reports of trials, under the 'adulteration-of-food act,' for selling adulterated articles of consumption; such as tea, coffee, mustard, butter, flour, pepper, cocoa, jams, bread, etc.

"*Butter.*—This was found to be adulterated with lard, drippings, tallow, palm-oil, and oils or fats from certain seeds.

"*Flour.*—This great staple was found sometimes to contain alum, as much as ten grains in four pounds.

"*Extract of Meat.*—Mr. Thomas Williams found fifty grains of red lead in a can of South American extract, said can having been painted red to give it a more showy and salable appearance.

"*Port Wine.*—To detect spurious port wine add to a portion of it in a test-tube an equal volume of amylic alcohol, and shake. The upper layer will assume a more or less characteristic pink or purple color. Genuine port wine yields no color to fusel oil. The poisonous matters used to color wine may produce fatal effects."

The report of the Committee on Legislation was read by the chairman, Secretary Maisch. This was in reference to various laws passed by the legislatures of several states in regard to the regulation of pharmacy, which were reported to be succeeding well; this being especially the case in the states of Alabama, Kentucky, and Missouri.

It was resolved that a committee of three be appointed by the president to report at the next meeting upon the feasibility of the publication of a table of maximum doses, and to devise a plan by means of which physicians can distinctly indicate unusually large doses in their prescriptions.

An essay on granulated effervescent compounds was read by Mr. R. V. Mattison, of Philadelphia, which was referred to the chairman of Unofficinal Preparations, to be reported on at the next annual meeting.

The gist of this essay was that the granulated effervescing compounds representing the various mineral waters were more agreeable to the taste, and more speedy in effect on account of the concentration of the dose; for instance, a heaping teaspoonful of the granulated salts, representing a quart of Crab Orchard Springs water, would certainly be more convenient of administration, more pleasant, and certainly more speedy in its results. The essayist, however, gave no formulas for the preparation of these saline preparations, and it was accordingly referred to the committee as aforesaid.

Prof. J. Lawrence Smith, being present, was invited to address the association. This request was complied with by Prof. Smith, who, after dwelling upon the improvements in pharmacy, begged leave to suggest that a memorial fund be subscribed to by every pharmaceutical association in the land, in order to erect a monument to the memory of Liebig, the father of organic chemistry; a testimonial of the regard in which his life-long labors are held not only by the profession alone, but by every lover of science. Prof. Smith said he had been authorized to superintend the raising of the

American memorial fund. A motion was carried authorizing the appointment of a committee of three from this association to act in concert with the National Chemical Committee.

Query No. 1 was answered to the effect that American licorice was generally of standard purity and quality, and that any gum contained in it was extracted from the root.

Query No. 4 was replied to verbally by P. W. Bedford, New York, which was in reference to the impurities of the commercial sulphate of potassium. Sulphate of potassium of American commerce is, as a rule, pure, and particularly free from sodium salts.

Query No. 5.—What is cincho-quinine? was answered by Albert E. Ebert, of Chicago, who stated it to be simply *cinchonia*, probably precipitated from the commercial sulphate by an alkali or alkaline carbonate.

Query No. 8.—Powdered blue mass—What is an easy and convenient mode of preparing a mercurial powder to fully represent the officinal blue pill? Answered in an essay by John F. Hancock, Baltimore.

A lengthy and general discussion followed this, in which the idea of reducing mercury to any condition of dry powder was combated, inasmuch as mercury in this condition after a lapse of time would become oxidized, and corrosive sublimate be formed as the result of the chemical change. If kept too long, an ordinary dose of the original powder would produce poisonous effects. The majority seemed to be in favor of doing away with any formula prescribing mercury in the state of powder, and adhering to that relating to the composition of blue mass. In this latter preparation honey is added, and thus all danger of the formation of corrosive sublimate as the result of oxidation is avoided.

Query No. 19, concerning the advantages of making suppositories by molding over the method of making them by hand, was answered by Geo. W. Kennedy, of Pottsville, Pa. He reported in favor of making suppositories by hand, inasmuch as a more perfect shape could be imparted; whereas by the molding process the suppositories were too apt to cling to the molds, and have their shape interfered with.

Query No. 22.—Does water extract all the purgative principles of rhubarb, and is the alcoholic percolate of rhubarb after its exhaustion with water inert? Charles A. Heinitsh, Lancaster, Pa.

The author in his essay established that water does not extract all the purgative principles of rhubarb, an alcoholic extract prepared from the drug, which had previously been exhausted with water, retaining some activity.

Query No. 26.—There is a petroleum product called cosmoline, having claims to considerable merit. Can its claims be established by experience, and to what pharmaceutical uses can it be put? Answered by Joseph L. Lemberger, Lebanon, Pa.

From the nature of the essay one would be led to judge that this product of petroleum was destined to displace every article in the apothecary's shop, so many are the diseases which it has been instrumental in curing. There seems to be no question, however, that it is a very useful remedial agent in the cure of certain skin-diseases, and as a base for all the popular ointments. It gave rise to a lengthy discussion, in which paraffine came in for a share of the glory. This cosmoline from the time it leaves the well is introduced to no chemical agent. The process of obtaining it is a slow and careful distillation, though paraffine is ultimately added to bring it up to the regular medical standard. The precise method of its preparation is, however, still kept secret; and, notwithstanding the author has been permitted to inspect the works, he has been able to throw but little light on the subject. Dr. C. W. Miller has attempted to prepare it artificially, and has succeeded in obtaining a product very closely resembling it by the judicious treatment of certain grades of paraffine oils, and the addition thereto of some paraffine.

Such a product can be prepared at about one fourth the price asked for cosmoline, and Dr. M. will in all probability be enabled in a short time to publish a working process for its preparation. Its use will be probably restricted to substitute the fats used in some ointments, over which it possesses the advantage of not becoming rancid by age.

Query No. 17.—Why do some of the diluted phosphoric acids of the market form precipitates with tincture of chloride of iron, while others do not? Louis Dohme, of Baltimore, said, "The pharmacopœia gives two processes for the preparation of this acid, from glacial phosphoric acid of the market and from phosphorus direct. Dilute phosphoric acid made from phosphorus direct does not give a precipitate with tincture of chloride of iron, while that made from the glacial acid very frequently does, owing to the presence of pyrophosphoric acid. Mr. D. has not positively determined why some of the glacial acids are not readily and completely converted into the ordinary tartaric acid, but will continue his researches and report at the next annual meeting."

An essay on the antiquity of the apothecaries' craft and title, by Mr. J. Bartlett Patten, enlisted profound attention. We quote a few extracts:

"The very old and respectable term 'apothecary,' borrowed from the Greek, naturalized into English, and associated with the practice of medicine all along as a collector, confectioner, and dispenser of drugs, is so applicable, so convenient, and so endeared to our memories that, like the words 'Bible' and 'church,' none other should be found to take its place.

"The earliest mention of the word is by Moses (Exodus xxx, 34–37). It is true Moses did not write Greek, but the Hebrew word *rakah* (pronounced rakach) employed by him, a word which is commonly translated apothecary in the Greek version made by order of Ptolemy Philadelphus, one hundred and eighty-five years before the nativity of Christ, and in the first translation of the Septuagint into the English, by Sir C. L. Brenton, this word is rendered 'perfumer,' which office was and is one special department of the apothecary's calling, from the fact that in our author's translation, and in the earlier English versions of the same scripture, the word *rakah* is rendered apothecary.

"It would seem that the business of the perfumer was not distinguished from that of an apothecary at the time of the translation. Thus Shakespeare, a contemporary of King James's translators, says, 'An ounce of civet, good apothecary, to sweeten my imagination.' In the life of Aristotle, who lived four hundred years before Christ, it is stated that he served some time in an herbalist or drug establishment at Athens. We know but little of the materia medica of those days, but it seems to have been almost entirely vegetable, which indeed was the case down to the time of Paracelsus, who introduced the medical use of mercury and several other minerals, together with a variety of elixirs.

"The first pharmacopœia on record was published in the year 49 B. C. In the golden and silver ages of the Roman Empire great advances were made in pharmacy, and some valuable points discovered, which are still retained in our modern pharmacopœias. Previous to the fourth century the apothecary and the physician were sometimes combined in one man, as in the case of the distinguished Galen, who kept a druggist's shop at Rome.

"It was not until the fourth century, however, that pharmacy became a distinct branch of medicine. With the decline and fall of the Roman Empire science and learning became nearly extinct in Western Europe, and as a result superstition and blind empiricism prevailed, and pharmacy made no progress. But in the East — particularly in Alexandria — chemistry and pharmacy were cultivated with assiduity, and the apothecaries were a numerous body, respected for their learning and high social position, under the protection and strict supervision of the government. The first renewal of medical science in the West after the dark ages was in Salerno, where arose a celebrated school in the eighth century, and from that time apothecaries began to be numerous throughout Europe.

"The first attempt to supersede the time-honored name of apothecary in the United States was made in the city of Philadelphia, in 1839, by Mr. Blair, who devised the name of 'pharmaceutist,' hitherto unknown to lexicographers, and displayed it at full length upon his sign. This excited much comment at the time among the pharmaceutical profession, who thought it somewhat pretentious, if not a positive compromise with quackery itself, while some of the rural non-professionals were absolutely deluded into the belief that the name over the door represented some imported wild animal that was on exhibition within. But all sorts of stories are too often told at the expense of an individual or a movement that seeks an advance upon time-honored precedents, and should be received therefore with many grains of allowance."

Mr. Ebert, of Chicago, in an elaborate essay, exposed the fraud "American opium." As compared with the imported article it was proved to be inefficacious, containing only a trace of the principles peculiar to the genuine article. The samples which were given to Profs. Proctor and Squibb were no doubt "salted," and consequently elicited an unwitting commendation from those eminent gentlemen, who did not suspect any attempt at fraud. On the strength of their recommendation many druggists were induced to purchase it, actuated by a desire to encourage home production as well as to save money.

Other members of the association testified to the truth of the foregoing statements.

Another fraud, in reference to the manufacture of the citrate of magnesia, was exposed.

After the discussion of many other interesting matters the association adjourned to meet in Boston in September, 1875.

[The foregoing report of the proceedings of the association, gathered from the Louisville morning newspapers, conveys but a very imperfect idea of the amount of work done during the meeting. The impression made upon all who attended the sessions of the association was that its membership consisted of earnest, active, intelligent, and cultivated men, who, animated by a common desire to advance and elevate their profession, went to work with a will. They certainly lost no time, nor were they much or long upon their feet. They went as straight for a "query" as when at home in their pharmacies they extemporize a formula or compound a prescription. They were pleasantly entertained by their brethren in Louisville, one of whom was honored by being made president of the association for 1875. Professor J. Lawrence Smith, the distinguished scientist, received the association at his residence, where the time was spent most agreeably in examining his extensive collections in both art and science, and looking through his chemical laboratory. The proportion of representative men in pharmacy present at this meeting of the association struck us as being particularly large. Among them we noticed Mr. Hancock, Mr. Dohme, and Prof. Moore, of Baltimore; Dr. Hoffmann, Mr. Neergard, and Prof. Bedford, of New York; Profs. Remington and Maisch, of Philadelphia; Mr. Ebert and Mr. Sargent, of Chicago; Mr. Baker, of Richmond, Va.; Mr. Lemberger, of Lebanon, Pa.; Prof. Judge, of Cincinnati; and many more whose names our space does not permit us to mention. The impression made by the association on the general public of Louisville was as favorable as could be. We have no doubt the same result will ensue wherever it shall hold its sessions.]

Reviews.

The Physiology of Man. By Austin Flint, Jr., M. D., Professor of Physiology and Physiological Anatomy in the Bellevue Hospital Medical College, New York, etc. New York: D. Appleton & Co. 1874.

With this volume the elaborate treatise of Dr. Flint on human physiology is completed, and in this is given a full index of all the five volumes. In announcing the appearance of this final contribution to the work we are free to say that we feel proud of it as an American book. Dr. Flint has achieved a task which reflects credit upon the literature and science of his country. The fact that he has been engaged eleven years in its preparation is proof of the fidelity with which he has labored to make it a faithful reflex of the physiological science of our day; and a better summary of the facts pertaining to it, we conscientiously believe, is not to be found—certainly not in the English language.

Dr. Flint claims to have been a good deal more than a compiler in the preparation of his work. He has to a great extent, as he says, formed his opinions "from the results of direct observation and experiment," and is therefore to be regarded as a contributor to physiological science. In successive volumes he has enunciated original views, some of which at least must be admitted as established. This we conceive to be the case with regard to his theory of respiration, which function, he has shown in his first volume, is set up not by the stimulation of carbonic acid in the blood-vessels, but by a sense of the want of oxygen in the general system. This necessity is felt generally by the organism, and gives rise to the first respiratory effort of the infant; as it excites the reflex movements by which respiration is maintained through life.

His views concerning a new excretory function of the liver, which he announced as early as 1862, and incorporated subsequently in his second volume, have recently been confirmed by the experiments of other physiologists. One great office of the liver, Dr. Flint conjectured, is to separate cholesterine from the blood, which being thus liberated is discharged with the fæces in the shape of stercorine; and the theory was supported by experiment as well as by clinical observations. The fact possesses great pathological importance, and explains some morbid phenomena connected with the liver. The retention of cholesterine in the blood, it was held by Dr. Flint, gave rise to a condition which he termed cholesteræmia; and this condition Dr. Koloman Müller has lately produced in dogs, with symptoms of "grave icterus," by injecting cholesterine into their veins.

Glycogenesis is another function claimed by Dr. Flint for the liver, and the correctness of this view is concurred in by numerous writers. The author thinks the discordant observations on this point may be reconciled by the fact that the sugar formed in the liver is washed out by the blood as fast as it is produced, and so may not be found, though the organ be examined even a few seconds after death.

Another conclusion which Dr. F. claims to have reached—namely, that muscular exertion largely increases the elimination of urea—has not been borne out by other observers, and may still be regarded as unsettled. The experiments by which he arrived at his conclusion are thought to have been altogether too limited in number and not sufficiently varied in character.

In the volume before us the author has given an account of the special senses and of generation as clear and satisfactory as could be presented in the space devoted to these difficult subjects. Of the chapters devoted to the special senses that on vision is the most complete, and will be found of great interest to all students of ophthalmology. The delicate subject of generation is handled with marked ability, and the whole work as it now stands forms a treatise on the physiology of man, which we introduce again to our readers as one which may be studied with profit and deep interest not only by medical men, but by all who desire to keep pace with the progress of natural science.

A Report of the Reduction of Two Cases of Chronic Inversion of the Uterus. By Prof. James P. White, M.D., of Buffalo, New York. Reprinted from the Transactions of the New York State Medical Society for 1874.

These are the eleventh and twelfth cases of chronic inversion of the uterus which Dr. White has succeeded in reducing.

In the first of these two cases the inversion had existed for twenty-two years, and reduction was accomplished in an hour and a half. In the second the inversion had occurred six years before, and reduction occupied two hours and ten minutes. A notable fact in regard to the latter case was that the tumor had been mistaken for a polypus, and an effort made to remove it with the *écraseur*, which was happily thwarted by the breaking of the wire, and then a more careful examination revealed the mistake. This took place a few weeks after the inversion occurred.

The peculiarities of Dr. White's method of operating are, after compressing the uterus with the hand, reducing its congestion and rendering it more pliable, and making gentle pressure in the line of the pelvic axis. He next introduces his *repositor*. This repositor consists of a stem of wood or hard rubber, about ten inches in length, slightly curved, one extremity of which is enlarged or cup-shaped and covered with soft rubber, and made to fit the fundus uteri; the other extremity having attached to it a coil of steel spring-wire, against which the breast of the operator may be placed, who by leaning forward may exert a constant and gentle pressure upon the uterus, and thus relieve his other hand, with which he can facilitate the repositing by manipulating the upper end of the uterus, either through the abdominal wall or by passing a finger into the rectum. A continuous pressure of eight or ten pounds is exerted by the repositor, and at the same time compression made by the hand within the vagina upon the portion of the uterus protruding beyond the os, the same hand also retaining the fundus and repositor in proper relation. When the cervix has been thus dilated so as to embrace the body of the uterus a rectum-bougie is substituted for the repositor, and pressure made by it, and the reduction completed.

The value of Dr. White's method, so clearly demonstrated by his remarkable successes, will be generally recognized by the profession. T. P.

Essays on Conservative Medicine and Kindred Topics.

By AUSTIN FLINT, M. D., Professor of the Principles and Practice of Medicine and of Clinical Medicine in Bellevue Hospital Medical College, New York. Philadelphia: H. C. Lea. 1874.

This neat little volume is composed of a series of essays written by the author at different times for journals of medicine, or delivered before medical and other societies, and collected into this form at the request of his friends for more convenient reference. We are glad to meet with them in their present shape, and are sure the many readers to whom they are no strangers will be pleased to have them in a volume. The essays are devoted to conservative medicine, to medicine in the past and present, alimentation in disease, tolerance of disease, the agency of mind in etiology, prophylaxis and therapeutics, and divine design as exemplified in the natural history of disease. With some of them our readers are already familiar; but they will bear more than one careful perusal. They are indeed papers to be studied. They evince an amount of sound sense and true philosophy gratifying to meet with in the discussion of medical subjects. We thank Dr. Flint and his publisher for the opportunity of again turning to these admirable papers in the tasteful and convenient form in which they are now given to the profession.

A Treatise on Food and Dietetics, Physiologically and Therapeutically considered.

By F. W. PAVY, M. D., F. R. S., Fellow of the Royal College of Physicians.

The author of this treatise is favorably known to the profession by his work on digestion, which was republished in this country several years ago, and his reputation will be enhanced by the volume the title of which stands at the head of this article. It is all the more acceptable because it is the only systematic work on the subject which has appeared for a long time in the English language; but apart from this it possesses intrinsic merits, which will give it a high rank among the treatises which have been written on food and dietetics. It is at once scientific and practical. It exhibits the various topics discussed in the light of modern physiology, and as they stand related to the human system in health and disease.

Liebig gave a wonderful impulse to this discussion nearly forty years ago, and his views in regard to the various offices of food were for a long time almost implicitly accepted by the profession; but modern researches have shown that the philosophy of that great chemist requires some modification, though taken as a whole his teachings were singularly correct. He was in error, for example, in contending that nitrogenous food must first become organized in the animal system before it can take part in the combustive process. It has been shown that in the carnivora, and in races of men that subsist on animal food, the nitrogenous elements unite in part directly with oxygen, and so minister to their vital heat without becoming assimilated with their bodies and forming a part of their organization. And it has also been established that oleaginous food has a more multiplex office in the economy than that ascribed to it by Liebig. Not only is it concerned in the evolution of heat, as he pointed out so satisfactorily, but it is quite as efficient in the development of muscular force. As men are warmed by it in cold climates, so they have the power of laboring in all latitudes through the force liberated in its combustion. Heat and muscular power are correlative. The caloric which maintains life in cold regions of the earth becomes muscular force in laborers under a southern sun by means of the oxidation of fatty elements of food. And such elements are found equally indispensable under the different conditions, the negro on a Georgia plantation partaking of his fat middling with quite as keen a relish as the Esquimaux devours whale blubber in the arctic zone.

All this is set forth with great clearness by Dr. Pavy, whose chapters on this subject embody the latest doctrines concerning the physiology of food. He says, "As is the case with reference to heat, the amount of mechanical energy producible is in proportion to the amount of chemical action occurring. A given amount of an organic compound, for example, will, as is well known, by oxidation give rise to the generation of a definite and ascertainable amount of heat. In the same manner, when the energy set free is manifested under the form of a mechanical power instead of heat, a fixed amount of work is capable of being performed. The energy produced may present itself under the form of a certain amount of heat, or, on the other hand, may lead to the accomplishment of a certain amount of work; not only so, but heat and mechanical power are known to be mutually convertible, and a definite expression can be given to their relative value in representative equivalents."

On the theory that muscular fiber must be disintegrated and oxidized in men subsisting on lean animal food and in the carnivora, in order to the evolution of animal heat, there would be an excess of urea in the urine of persons after violent exercise; but it has been shown by numerous experiments that such is not the fact. The nitrogen eliminated by the kidneys in the many observations in which it was examined formed no measure of the work performed, and it follows that muscular destruction is not a result of muscular work. Thus, in two men subjected to experiment by Dr. Parkes, the quantity of urinary nitrogen excreted was as great the days when they were at rest as those on which they took active exercise.

Liebig's conclusions as to the office of alcohol in the animal economy have also been subjected to a severe scrutiny, and are now conceded to have been too sweeping. Next to fat, Liebig placed alcohol in the scale of respiratory elements; but since he promulgated these views it has been discovered that alcohol when taken as a beverage passes off from the body in an unchanged state; and this has led to the belief with a great many physiologists that this fluid, so largely consumed by men, takes no part in the nutritive process. MM. Lallemand, Perrin, and Duvoy found that when only a moderate quantity had been ingested it was recognizable for many hours afterward, as well in the urine as in the pulmonary and cutaneous exhalations. It was even found untransformed in the brains of dogs as long as thirty-six hours after its ingestion; and similar results were obtained by Dr. Edward Smith, who asserts that he repeatedly detected alcohol in the breath four hours after an ounce and a half had been taken, or quite long enough for its transformation if such took place in the system.

Hence it has been concluded by this class of physiologists that alcohol is not to be ranked among alimentary beverages, and that it is not productive of an increase of heat in the body; on the contrary, it is claimed that the vital heat is even depressed by alcohol. But Dr. Anstie insists that experiments performed by himself and other investigators have proved that a change is effected in the fluid by which it ministers to the vital forces. Undoubtedly a portion is exhaled by the lungs and may escape through the kidneys or bowels; but the amount that passes off unchanged, Dr. Anstie contends, is but a fraction of that ingested when taken in moderate quantities, and he is supported in this opinion by numerous authorities. Beyond a certain amount the powers of the system are not equal to its oxidation, and when taken in excess much of it must be retained in the system or eliminated unaltered; but up to that point the chief portion of it undergoes consumption in the body, and takes part in the maintenance of its functions.

From two series of experiments conducted upon himself Dr. Dupré reaches the following conclusions, as given by Dr. Pavy: "The amount of alcohol eliminated per day does not increase with the continuance of the alcoholic diet; therefore all the alcohol consumed daily must of necessity be disposed of daily; and as it is certainly not eliminated within that time, it must be destroyed in the system. The elimination of alcohol following the ingestion of a dose or doses of alcohol ceases in from nine to twenty-four hours after the last dose has been taken. The amount of alcohol eliminated in both breath and urine is a minute fraction only of the amount of alcohol taken."

Dr. Pavy regards the question as still open to physiological and chemical investigation; but he believes from all the evidence before him it may be inferred that alcohol imbibed in moderate quantities is chiefly destroyed in the system, becoming a source of vital power. Let it be admitted. Most physicians will concur in the belief. It is generally conceded that alcohol is useful as a medicine, as a generator of force in certain conditions of the system; and all practitioners will agree in the propriety of giving "strong drink to him that is ready to perish." All this may be granted in favor of alcohol, and still enough will remain against it to condemn its use by persons in health. It is not necessary to exaggerate the dangers attendant on drink by attempting to prove that alcohol may accumulate in the brain or other organs; the case is bad enough in its admitted enormities.

In practical dietetics the reader will find a rich fund of information as to the food proper for man, the proper amount of food, times of eating, the culinary preparation of food, and the diet for infants; and in reference to therapeutic dietetics judicious instructions are given. In one word, Dr. Pavy has favored his brethren with an admirable book on a most interesting and important subject. When the practice was to reduce the diet of the sick to the *minimum* compatible with existence physicians might despise dietetics; but since one of the great points in practice has come to be the support of our patients by suitable aliment, the study of food has become one of the most important in medicine.

Electro-Therapeutics: A Condensed Manual of Medical Electricity. By D. F. Lincoln, M.D., Physician to the Department of Diseases of the Nervous System, Boston Dispensary. Philadelphia: Henry C. Lea. 1874.

This is appropriately designated a condensed manual. One hundred and seventy-three octavo pages offer brief enough space to explain the laws of electricity, the different instruments for its medical and surgical employment, and its therapeutic uses. Nevertheless Dr. Lincoln has succeeded admirably in his purpose, and his book will obtain abundant professional approval.

T. P.

The Puerperal Diseases: Clinical Lectures delivered at Bellevue Hospital. By FORDYCE BARKER, M. D., Clinical Professor of Midwifery and Diseases of Women in the Bellevue Hospital Medical College, etc. New York: D. Appleton & Co. 1874.

This is in every way an admirable work; admirable in the design and execution by the author, and admirable in the manner of presentation by the publishers.

The first of these lectures is upon *puerperal convalescence.* In speaking of the changes which occur in the uterus after delivery, Dr. Barker says, "The cicatrization of its internal surface is accomplished by the exudation of organizable lymph and the development of a new layer of mucous membrane;" a statement which seems to include two errors—the one that the uterus has been deprived of its mucous membrane, the other that the restoration of this membrane is effected by an inflammatory process. Any one by reading the essay by Dr. Matthews Duncan,* *the internal surface of the uterus after delivery*, will readily see how great these errors are.

A large portion of the chapter is devoted to the consideration of *secondary hemorrhage*, and fourteen causes of this accident are mentioned. Really a fifteenth cause might be added: sloughing of some portion of the vagina. One of the severest cases of hemorrhage we have ever known thus occurred a week after delivery.

The second lecture is upon *diet of puerperal women.* We are glad to see Dr. Barker is no friend to the starvation practices still adhered to by a few venerable nurses, in the

* Researches in Obstetrics. Edinburgh, 1868.

profession and out of it, "who lag superfluous on the stage," but advocates giving "the puerperal woman as good, nutritious food as she has an appetite for and can easily digest and assimilate." A woman has gone through exhausting suffering and toil, and she needs something better to restore her vital forces than crackers and sweetened water, gruel, and tea and toast. She is about engaging in the dairy business, and let her have the best material for milk-making; and it is pretty certain that the *cura famis* never would frighten away puerperal fever or mammary inflammation.

Lacerations of the perinœum are the subject of the third lecture. Dr. Barker belongs to the class of perineal supporters. He believes that the use of the forceps in occipito-posterior deliveries, in some face presentations, and in those cases of vertex presentation where there is excessive flexion of the head, and the sacrum has a less curvature than is normal, may be absolutely necessary to prevent laceration. So too anæsthetics may prevent the accident; incisions are required in certain cases; finally he speaks with approval of Dr. Goodell's method—aiding nature when proper by inserting one or two fingers in the rectum, and hook up and pull forward the sphincter ani toward the pubes.

Passing the lectures on *puerperal albuminuria* and *convulsions*, we come to the one on *lactation;* and in the course of this lecture the topic of *milk-fever* is considered. In reference to this disorder Dr. B. admits its occasional — we might almost say its exceptional — existence; thus he has a record of a hundred cases, in eight of which milk-fever occurred. A skeptic might ask, How happens it that a common cause in one hundred cases has no effect in ninety-two? Researches by Winchel and Grünewaldt, and more recently by D'Espine, to none of which does Dr. Barker make reference, discredit the existence of this disorder; and D'Espine asserts, after many faithful observations, "There is no milk-fever. The fever of the first septenary is almost invariably a mild septicæmia, due to absorption from the lochia by slight wounds of the utero-vaginal canal."* The rest of the lecture is devoted to the treatment of *disorders of the nipple.*

In the lecture upon *mastitis and mammary abscess* the exciting causes of the former are mentioned as follows: exposure to cold, inflammation of the nipple extending to the breasts, repression of the secretion of the milk at an early period, obstructed lacteal ducts, bruises and other external injuries, and emotional causes, as mental disturbances, fright, etc. Our own conviction is that it is only exceptionally that mammary inflammation and abscess occur from any other causes than inflammation of the nipple, inflammation with ulceration or fissures, and the extension of this inflammation to the gland; this result frequently following the persistent violences done the breast by continued nursing, or efforts with abominable pumps and voracious puppies, or the more abominable mouths of adults, to "get the milk out," under the notion that this mildest-mannered of secretions—this most polite of visitors, which is sure to retire if not wanted—will be the cause, if let alone, of a "gathered breast." However this may be, we do not credit "obstructed lacteal ducts" or "repression of the secretion of milk at an early period" with the mischief which Dr. Barker attributes to them. The reasoning and observations of Dr. McClintock† seem conclusive as to the innocuousness of milk in this regard; and he very justly observes that retention of the milk should excite inflammation of the mammary gland is a proposition not sustained by analogy. Like Dr. M., we have never seen a case of mammary abscess in a woman who did not nurse at all. In St. John's Hospital, Cincinnati, in the winters of 1864–5, 1865–6, and since then in private practice, we have had several opportunities of observing that distension of the breasts with milk in non-nursing women never terminates in abscess; and still further, in not less than half a dozen cases we have repeated the experiment of Dr. McClintock in the cases of recently-delivered women whose infants were still-born, or who from other cause did not nurse, applied to one breast cerecloth, to the other extract of belladonna, and never have we found any difference as to the time of disappearance of the secretion in the two glands.

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* *Contribution a l'Etude de la Septicémia Puerpérale.* Paris, 1873.

† Clinical Memoirs on Diseases of Women. Dublin, 1863.

Believing in the opinion of Dr. McClintock as to the non-injurious effect of milk in reference to mammary inflammation, we hoped to see that opinion confirmed by the large experience and faithful observation of Dr. Barker; but, alas! he too, as we have seen, ranges himself among the milkmen!

Dr. Barker advocates the local use of belladonna in mastitis, suggesting, in addition to the relief of pain, that it is useful in relaxing muscular fiber, thus allowing a more free exit of milk by dilating the lactiferous tubes. But is it not true, so far as any paralyzing influence of belladonna upon muscular fiber is concerned, that action is exerted especially upon sphincters, and that its chief physiological effect is to produce active vascular constriction? However this may be, the utility of the agent under the circumstances can not be doubted, though we are not prepared to accept all the explanation the author offers.

The lecture on *puerperal mania* is exceedingly interesting and instructive. Dr. Barker states that he has found in this disorder "chloral hydrate of immense value. It apparently does not interfere in the slightest degree with any of the organic functions; it is not followed by any unpleasant secondary effects, as opium and bromide of potassium sometimes are; and in mania I have never yet seen it fail to induce sleep."

Relaxation of the pelvic symphyses is the subject of the eleventh lecture, and *phlegmasia dolens* of the twelfth. While in reference to the latter affection the author—after twenty-odd pages chiefly devoted to a controversial discussion, only to conclude that we are as ignorant of its real pathological nature as we are of that of rheumatism and many other diseases — gives us in half a dozen pages an excellent presentation of treatment.

The remaining lectures are upon *puerperal thrombosis* and *embolism*, *puerperal phlebitis*, *puerperal metritis*, *puerperal peritonitis*, *pelvic peritonitis* and *pelvic cellulitis*, *puerperal septicæmia* and *pyæmia*, and *puerperal fever.*

In considering puerperal fever the author enters very fully into a discussion of the conflicting views of the profession, and maintains that it is an essential disorder and not the consequence of any local lesions, and that it may destroy life without sufficient local disease to explain the symptoms or the cause of death. Dr. Barker refers to the frequent occurrence of erysipelas in the infants of mothers affected with puerperal fever, and strongly, as he should, insists upon the contagiousness of the fever. We wish obstetric teachers had all held this view as to the contagion of puerperal fever in our own student days, more than twenty-two years ago. If these lines should chance to meet the eyes of a skeptic as to this contagious character, we pray he may not be convinced by as sad an experience as our own some twelve years since. For the benefit of such skeptic we will briefly narrate that experience.

A gentleman in the prime of life and ordinarily in vigorous health was suddenly attacked, upon his return home after a protracted and fatiguing visit to several of the military encampments in the West, with some grave abdominal inflammation, proving fatal in four days, the nature of which neither the late Dr. Chas. Fishback—an able physician and a brave, noble man, who was called in consultation with me — nor I could explain. An autopsy was made four days after death; made in the open air, on a chilly March day, just at the entrance to an undertaker's vault. We found extensive suppurative peritonitis. Dr. F., in stitching up the abdominal incision, had great difficulty in forcing the needle through the half-frozen tissues, and injured his thumb in pressing the head of the needle, though unconscious of such injury at the time. That thumb became inflamed, terribly painful, notwithstanding free incisions at the first onset of suffering, within twelve hours, and proved to be the focus of a pyæmia or septicæmia which was mortal within a week; a pyæmia or septicæmia, with erysipelatous patches on various parts of the body, and diphtheritic exudations upon the fauces, in the larynx, and in the nares.

During the week of Dr. Fishback's illness, and while visiting him several times each day, I attended three cases of labor, the cases being not less than a mile apart, and the three mothers died of puerperal fever, the three infants of erysipelas. Was the poison carried by me to all these puerperal women? And if so, was it acquired at the post mortem or derived from the pyæmic patient? Or finally, did it originate in the first obstetrical patient, in whom the disease already existed when the others were confined? Whatever may be the solution, I now believe that it would be criminal for the practitioner to attend a case of labor while having a case of pyæmia or septicæmia, or for some days after making such a post mortem as that here narrated.

Immediately after these unfortunate cases I relinquished practice and left the city for three weeks; upon my return I attended to obstetrical practice as usual, and from that day to this have never seen a case of puerperal fever except in consultation. I had learned from the lips of an honored teacher, now resting in the grave, the non-contagiousness of puerperal fever; but the lesson was unlearned by this sad experience, and unlearned forever.

Returning from this digression, Dr. Barker's therapeutics of this disorder include three chief agents; viz., veratrum viride, morphia, and quinia. He very justly dismisses mercurials in these words: "Mercurials have been and still are advised by many authors. By some mercury is supposed to be particularly efficacious in the treatment of phlebitic lesions; but I find no evidence that it is so, either from my own or from the experience of others; neither can I discover any scientific reason why it should be of service in arresting phlebitis, peritonitis, or any other of the local inflammations."

We can not any further continue the notice of this book, which, despite a few slight blemishes, is one of great value. We wish Dr. Barker's lectures were in the hands of every practitioner. T. P.

Nomenclature of Diseases: Prepared for the use of Medical Officers of the United States Marine Hospital Service by the Supervising Surgeon, JOHN M. WOODWORTH, M. D.

This is simply a handsomely-printed copy of the Nomenclature of the Royal College of Physicians, London, differing only in the omission of the French, German, and Italian equivalents, the transposition of the English and Latin names, the verification of the index, and the correction of a few clerical and typographical errors. T. P.

Vaccination: A Report to the Medical Society of Wisconsin. By Dr. E. L. GRIFFIN, of Fon du Lac. Milwaukee: Travser, Williams & Walters. 1874.

Dr. Griffin, in this paper, has re-opened the discussion of several most important points connected with vaccination, and insists with much earnestness upon several conclusions of great moment to society. He is satisfied that the vaccine virus does degenerate, as has often been asserted, and that it has become less protective by its many transmissions through the human system since the time of its discoverer. This he holds is shown, first, by the diminution of the local and general phenomena now exhibited by the vaccine disease as compared with those presented in its early history, or with those attending the use of cow-pox at the present time; secondly, by the more frequent appearance of variola in vaccinated subjects; thirdly, by the increased success of re-vaccination and of the cow-pox vaccination over that with humanized lymph in cases of limited susceptibility to the vaccinal disease.

As to the increase of variola in vaccinated persons, the following statistics appear conclusive: Dr. Brown, of Scotland, as early as 1809, found the disease in a modified form in only one half of one per cent of all vaccinated in infancy; in 1830 it was found that thirty-five per cent of vaccinated subjects were susceptible of varioloid, and in 1864 the ratio had risen to eighty-four per cent.

The superior activity of the virus fresh from the cow is proved by the fact that in many cases in which humanized lymph has failed fresh cow-pox has been effectual. Dr. Griffin succeeded in an individual who had been vaccinated fifteen times with the old virus without effect. Donner, in a very large experience with vaccinated subjects, found the cow-pox nearly twice as efficacious as the humanized lymph. Steinbrenner reports one success in thirteen trials with the new against three out of four with the recent lymph. "In twenty cases where he used the old in one arm and the new in the other he got seven good pocks from the new and only two from the old."

The success of vaccination, Dr. Griffin is persuaded, depends largely upon the quality as well as upon the quantity of the virus, and he proves by incontestible evidence the advantage of many insertions. Thus Dr. Lee, of Philadelphia, found the mortality from small-pox after a single insertion to be fifteen per cent, while it was only five per cent with those who had five or more scars to show. Dr. Marson, in five thousand cases of post-vaccinal small-pox, gives the death-rate as seven per cent in patients with one scar, four per cent in those with two, while in those with four or more it was only about half of one per cent.

Dr. Griffin is strongly in favor of revaccination. He says, in support of the practice, that where universally pursued in Europe "small-pox is all but annihilated, and deaths from it unknown." Dr. Marson gives strong testimony on this point. He says, "I have been twenty-nine years in charge of a small-pox hospital, and have revaccinated all the nurses and attendants on their entrance at the hospital, and not one of them has taken small-pox. They are exposed daily to the infection of the disease, and some have remained here several years." He adds with truth, "I think I could hardly state any thing more strongly in favor of revaccination. What I have been able to do for the servants and nurses could no doubt be done for the public generally." Dr. G. says, "In the army of Wurtemburg, during five years, there was but one case of varioloid among 14,384 revaccinated soldiers, although small-pox had been imported into different regiments sixteen times." In the same period, of thirty thousand revaccinated persons in civil practice, only one contracted varioloid.

The time of revaccination, it is agreed by the best authorities, is at twelve or fifteen years, up to which period the protection from the first operation is believed to continue; and all persons, Dr. G. contends, attaining that age should be revaccinated, whether small-pox be prevalent or not. He believes, with Dr. Marson and other advocates of revaccination, that by industriously pursuing this course small-pox may be "banished from the domain of human society."

The subject is one which ought never to be lost sight of by the public, and we are pleased with the earnest manner in which the author of this paper presses it upon the professional mind.

Clinic of the Month.

MONOBROMIDE OF CAMPHOR.—Dr. Bourneville, of Paris, who has been experimenting with this new agent in certain nervous affections, says (Practitioner) that in *insomnia* he gave it in two cases—to one in four-grain doses at bed-time, and to the other eight grains—with the effect of securing sleep. In three cases of chronic paralysis agitans the monobromide diminished the agitation and slightly increased sleep. An excessively chronic and violent case of chorea was much tranquilized while taking the drug. In *hystero-epilepsy*, of which Dr. B. had two cases, he gave eight to ten grains of the medicine daily, increasing the quantity by two grains every five days, with notable amendment. In five cases of *epilepsy*, all of long-standing, the results, without being conclusive, were sufficiently satisfactory to encourage a further trial of the remedy. Dr. B. exhibits the monobromide in pill, or dragée, and hypodermically. For the first he covers two grains of the monobromide with a sufficient quantity of sugar to preserve it from contact with the air and facilitate its administration. For hypodermic use he dissolves forty-five grains of the monobromide in nine drachms of alcohol and four and a half drachms of glycerine, and of this solution injects from forty to fifty drops.

A NEW METHOD OF CIRCUMCISION.—Mr. Howse, of Guy's Hospital, in a short paper on circumcision, alludes to the drawbacks which sometimes follow the operation as usually performed, and says, "The remedy which I propose, and which I have been in the habit of using in all my circumcision cases, is the following: after removing the skin in the ordinary way cut the wedge-shaped piece of mucous membrane *at the frænum* with a pair of scissors, and then snip the frænum cleanly away from the glans, thus removing it and the wedge-shaped bit of mucous membrane in one piece together. Then unite the skin and mucous membrane in the ordinary way, taking care not to let the latter retract too much on to the dorsum, otherwise there will be an insufficient amount on the ventral aspect. In one or two cases, where I was not sufficiently careful to avoid retraction of the mucous membrane on to the dorsum in putting in the suture, I have had the formation of a slight dorsal swelling; but this has been very slight, and has completely subsided in the course of a week or two."

CARBOLIC ACID IN CONTAGIOUS DISEASES.—M. Cornevin, veterinary surgeon at Montigny-le-Roi, has just published a memoir on the above, the conclusions of which may be summed up thus: 1. Carbolic acid exerts no specific action on virus, and nothing points to its employment in virulent diseases, properly so called. 2. In infectious diseases, and especially in charbon, it produces good results. The effects are more certain and more rapid in the horse than in the ox, and the digestion of the latter is often prevented by the acid. 3. In cases where purulent infection is to be apprehended, and even in those where it exists, there seems no special reason for recommending particularly the employment of the acid externally and internally, chloride or oxide of sodium having always appeared much more effective. *(Lyon Médicale.)*

TREATMENT OF VARICES BY THE LOCAL EMPLOYMENT OF PERCHLORIDE OF IRON.—Dr. Linon, of Verviers, has used perchloride of iron locally with great success during the last three years in the treatment of varices. The strength of the solution is about two and a half drachms to eight ounces of water. Compresses of flannel are steeped in the water, then wrung out, and applied by means of a flannel bandage, which is only to be moderately tightened. This application is to be kept on twenty-four hours, and on removing it the surgeon is much surprised to find that the venous dilatations have almost entirely disappeared. The applications are to be renewed as above during seven or eight days successively, after which time the bandage is to be kept on, without any further wetting, till it gets loose. It is then to be wetted again with the solution, and applied until the varices have disappeared, which generally takes place after eight days or a fortnight, according to the size of the swelling. These simple means have removed in a few days enormous varices, accompanied by violent pain, with black spots on the surface, and have restored to the patients the use of their limbs. By the unsuccessful application of dry bandages only, Dr. Linon has been able to show that it is not compression but really the local action of the iron which is efficacious. The local action of thermal waters containing magnesia on the skin is similar to that of the perchloride. (London Lancet.)

APPLICATION FOR BURNS.—M. Lebigot recommends the following mixture as having been very successful: cape aloes, four ounces; water, ten ounces; alcohol (90°), three ounces. The ingredients are to be melted together in a china plate over a slow fire, allowed to cool, and then filtered; after which three more ounces of alcohol are to be added. It is then ready for use. A table-spoonful of the mixture mixed with a tea-spoonful of acetate of lead and twenty table-spoonfuls of water constitutes an excellent remedy. It is to be applied morning and evening on the burnt parts. *(Ibid.)*

TREATMENT OF WOUNDS.—The gist of Dr. Abeille's work on the above subject consists in placing a wound in the same conditions as if it were subcutaneous; protection from the permanent action of air, from the presence of sanious and serous liquids, etc. His method is contained in the three following points: 1. Immediate reunion of wounds; 2. Rare dressings every three or four days—one is often sufficient; 3. Applications of cold or tepid water to the dressings. The water is not employed with the object of "refrigerating" the surface, but simply of moderating inflammation, of giving a degree of laxity and softness to the tissues. According to Dr. Abeille, when thus used it accelerates the process of reorganization. *(Ibid.)*

TREATMENT OF ZONA BY COLLODION AND MORPHIA.—Dr. Bourdon, Hôpital la Charité, after having tried a great many local means for treating the above disease and checking the intense pain, has definitively adopted the following plan: without opening the vesicles he paints all the diseased surface with a combination of collodion and morphia—collodion one ounce, morphia eight grains; the mixture must be put on pretty thickly. The pain ceases from the second day; and at the end of seven or eight days, when the layer of collodion is removed, all the vesicles have disappeared, and there remains only a slight local redness. *(Ibid.)*

CINCHO-QUININE.—Dr. J. F. Miller, of Goldsboro, N. C., writes, in the Philadelphia Medical and Surgical Reporter, as follows of this antiperiodic:

"Having used it freely for about twelve months, and fairly tested its virtues both as a tonic and antiperiodic, I recommend it to my professional brethren as a most valuable medicine. I have observed but one unpleasant effect even in children; *i. e.*, an efflorescence of the skin after giving it for several days in full doses; but this effect is comparatively rare and really of little importance. I do not regard the cincho altogether equal to the sulphate of quinine as an antiperiodic, of the same quantity by weight, but probably about one eighth weaker; but the sulphate costs a little over one third more than the cincho-quinine, which as a pecuniary investment leaves a balance in favor of the latter article. The cincho-quinine certainly agrees with the stomach better than the sulphate, and produces little or no nervous derangement, and is consequently preferable to the sulphate in many cases. Notwithstanding the eruption that now and then appears from its exhibition to children, I regard it as particularly adapted to this class of patients; for by giving it as an elixir it is readily taken, a most important consideration.

"The following are a few of the cases of children treated with the cincho-quinine.

"Ella, aged eighteen months, has had intermittent fever, quotidian form, for several days. Chill believed to appear from 8 to 10 A. M.

℞. Cincho-quinine, ...	gr. vij;
Aro. sulph. acid, ...	gtt. v;
Syr. ginger, ...	āā ℥ss.
Rose-water, ...	

Give a tea-spoonful at 8 and 11 P. M. and at 2 and 5 A. M. No perceptible chill, but a slight fever about 1 P. M. Repeated the dose at 5, 7, 9, and 11 A. M. next day. Patient recovered without further difficulty.

"Tommy, aged five years, had two chills, tertian form, the last being very severe and fever lasting unusually long. Time of chill, 7 A. M.

℞. Calomel, ...	āā gr. ij.	M.
Leptandrin, ...		

Take at bed-time. Medicine acted well early next morning, and at 8 and 11 P. M. and 2 and 5 A. M. two tea-spoonfuls of the following mixture were given:

℞. Cincho-quinine, ...	gr. xij;
Aro. sulph. acid, ...	gtt. vij;
Syr. ginger, ...	āā ℥j.
Rose-water, ...	

No return of chill or fever; patient rapidly recovered. Took remainder of prescription, in tea-spoonful doses, three times a day.

"My own child, Charlie, aged seven and a half years, took the same prescription given to case No. 2, with a like result. A few drops of tinct. cinnamon will add to the agreeableness of the above elixir."

Treatment of Dysentery.—Dr. Bodo Wenzel has often had occasion to make use in dysentery of enemata of iced water, or rather water containing finely-powdered ice. Under the influence of this treatment he has noted the rapid disappearance of the bloody stools and tenesmus, and amendment of the fever. This treatment is only successful, however, in recent and acute cases. It then constitutes a most efficacious remedy. *(Berl. Klin. Wochenschrift.)*

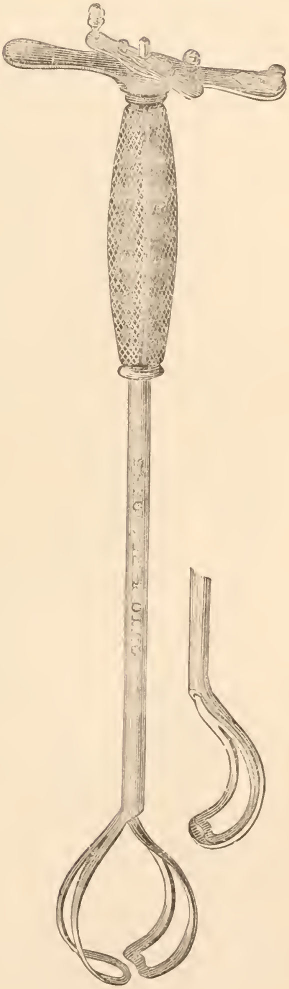
Treatment of Pneumonia and Bronchitis by Carbolic Acid.—Mr. Henry Greenway writes (British Medical Journal) that he has been treating uncomplicated pneumonia and bronchitis very successfully with carbolic acid. The following is his formula for an adult:

℞. Glycerini acidi carbolici, . . ʒ ij;
Extracti opii liquidi, ... *m* xxx;
Aquæ camphoræ, ... ℥ vj.
M. S. A table-spoonful every four or six hours in water.

Notes and Queries.

Dr. Parvin's Polyptome, Drs. Aveling's and Leiter's Transfusion Instruments.—At the recent meeting of the American Medical Association Dr. Parvin presented the section on *Obstetrics and the Diseases of Women and Children* some instruments for the removal of intra-uterine polypi, and the transfusion apparatus of Leiter and that of Aveling. The section passed a resolution requesting him to furnish representations with descriptions of these instruments for the volume of *Transactions*, and we publish the subjoined from advanced sheets:

"The instrument here represented—the drawing is about half size—is one of three that I have made for the removal of intra-uterine polypi. It is both a polyptome and forceps, and is intended to obviate those difficulties which often occur in the removal of these growths, difficulties in reaching and in dividing the pedicle, and in the extraction of the tumor. It consists of two curved, fenestrated blades, the one *lying within the other*, having straight handles, one of the handles a cylinder


Dr. Parvin's Polyptome.

through which the other passes, and in which it may be made to revolve by a winch attached to it externally. The outside blade is rounded at the end, and is a little longer than the other, which, instead of being rounded, is slightly convex, and has a cutting edge.*

"In operating pass the blades lying together as represented in the lower figure up one side of the polypus and over its superior portion until the pedicle is reached; then by means of the winch cause the inner blade to make a complete rotation, and in this movement the pedicle will be divided; then a half rotation, bringing the blades in the relation represented in the upper figure, will firmly embrace the tumor, and its extraction can be readily effected.

"Since the meeting of the association I have furnished Otto & Reynders, of New York, with a model of my instrument. They have made two or three modifications in it which I heartily approve, as these add decidedly to its neatness and somewhat to its efficiency.

"Of the other two instruments one is similar in form to that here represented, save that the blades are about the same length, each is rounded and neither has a cutting edge, and the handle of the internal blade is a tube as well as that of the external. Through this tube a strong flexible wire is passed down to the blades, and through a perforation in each (like threading two needles with one thread, thus making a loop), and then the wire is returned through the tube, and the two ends are fastened to a windlass just external to the tube. Now, as in the operation previously described, after introducing the instrument rotate the internal blade (in this movement the wire is made to encircle the pedicle of the polypus), then by gradually turning the windlass the wire cuts its way through; this accomplished, loosen the ends of the wire, and then a semi-rotation of the inner blades enables the ready withdrawal of the tumor.

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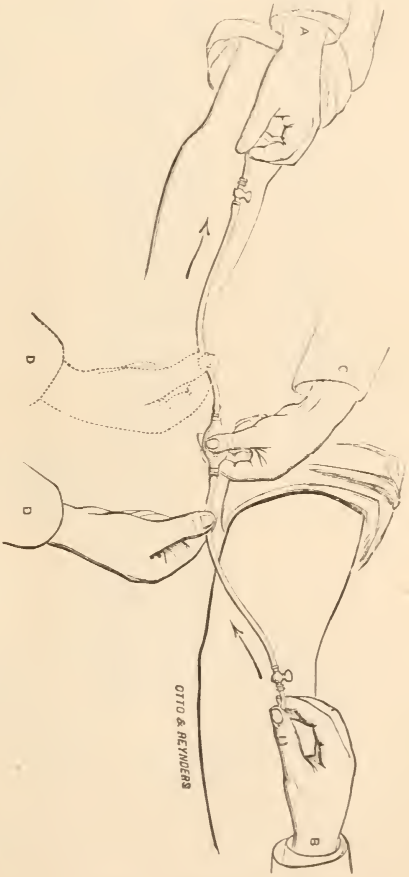
* For this arrangement of the *blades* I am indebted to my friend Dr. Hollingsworth, of Indianapolis, a talented and ingenious dentist, who, with the facilities of his workshop, meager for such a purpose, made my first instrument, differing, however, very materially from the one I here describe.

"The other instrument is simply a pair of long, straight forceps, somewhat like miniature obstetrical forceps in form, with the internal extremities of the blades not rounded, but having a rather broad and thick margin, coarsely serrated, making a sort of linear *écraseur.* In operating introduce each blade separately; then in locking them the pedicle will be divided, especially if in this process a sort of up-and-down motion is given to one or the other blade.

"The subject of *immediate transfusion* was brought prominently before the London Obstetrical Society, in 1864,[*] by Dr. Aveling, when he exhibited a very simple apparatus for the operation; the apparatus consisting of two small silver tubes to enter the vessels, and of an india-rubber pipe, by which they are united, and which has in its center an elastic receptacle holding about two drachms. In 1872[†] Dr. A. presented to the society his instrument, modified by the addition of a tap on each tube. This is the form



Dr. Aveling's Transfusion Apparatus.

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[*] See vol. vi of its Transactions.

[†] Obstetrical Transactions, vol. xiv.

presented the section and now represented above. The tube for insertion into the vein of the blood-donor is rounded and the other beveled; the former is inserted downward, the latter upward. The vein may be opened, as suggested by Dr. A.,* by seizing it with a pair of forceps and incising it so as to form a V-shaped flap. The india-rubber portions of the apparatus should be completely filled with warm water, partly for cleanliness and partly to insure the absence of air. The tubes also containing water are inserted in the vein, each tube being held by an assistant; then the connection is made, and the operator compresses the bulb holding the rubber tube on the side toward the donor; then let the bulb expand while holding firmly the rubber tube between it and the recipient; immediately the bulb fills with blood, and now repeating the previous manipulation it is transferred to the recipient.†

"Leiter's transfusion apparatus is a recent and very ingenious, though not at all complicated, instrument with which transfusion, either immediate or mediate, may be performed. It consists of a cylinder (*c*) with an oblique opening (*b*), into which the lancet (*e*) is inserted; a pump (*f*), a tube and glass receiver (*g*), and a transfusion canula (*h*). There is also a foot-piece (*d*), which replaces the cylinder (*c*) in *mediate* transfusion.

"In immediate transfusion the cylinder is strapped on the arm of the blood-donor, with the opening (*b*) superiorly, in order that the lancet shall be directly obliquely downward, and so strapped that the lancet will be applied directly to the vein selected for opening. Fill the cylinder with water, then screw on the pump, which may also be filled with water to insure the absence of air when the transfusion is actually commenced; press the lancet down upon the vein, and then

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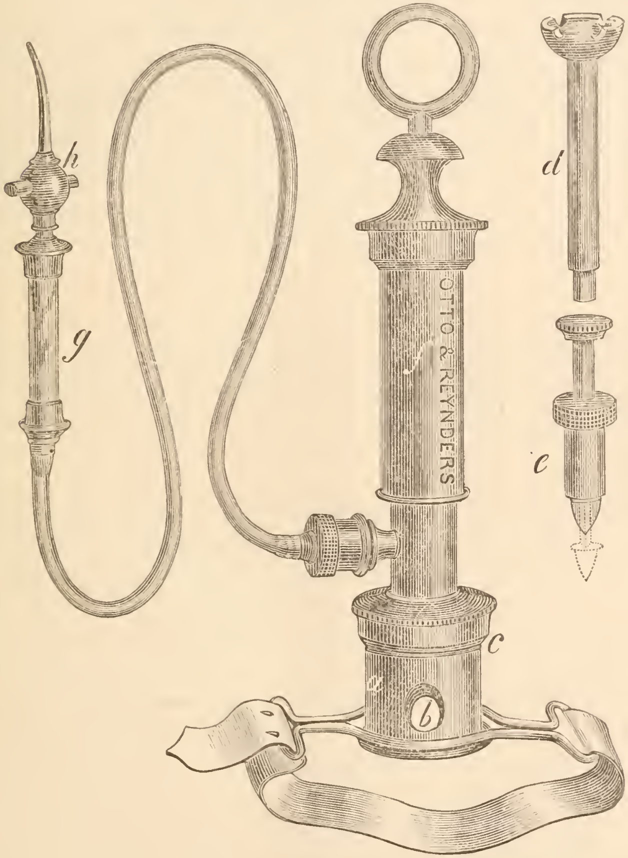
*Obstetrical Transactions, vol. xv. It is somewhat remarkable that in Dr. Leishman's excellent work on Obstetrics Dr. Aveling's instrument of 1864, *not* of 1872, is represented. (See System of Midwifery, Am. ed., p. 405.)

†A very complete account of the method of operating will be found in the New York Medical Record, April 1, 1874.

pump until all the water passes off, and upon introducing the canula into the recipient's vein the blood is steadily thrown into it.

"Should *mediate* transfusion—with defibrinated blood, for example—be preferred, the cylinder, strap, and lancet are removed, and the foot-piece (*d*) is attached to the pump; this foot-piece is then placed in the vessel containing the prepared blood, the pump used as before until the blood unmixed with water or air escapes from the canula, when



Leiter's Transfusion Apparatus.

the latter is inserted into the recipient's vein and the requisite amount of blood transfused."

THE WEST VIRGINIA MEDICAL STUDENT is the title of a publication which is announced for January, 1875, to be edited by Dr. James E. Reeves, at Wheeling, W. Va. It is to be a monthly record of the progress of medicine, surgery, and the allied sciences, and will be entirely devoted to subjects of practical importance to the general practitioner. It will contain thirty-two pages of matter, at a subscription-price of two dollars a year. We bespeak for the coming "Medical Student" the same cordial greetings which its many namesakes are receiving just at this time in all the great medical centers.

REGISTRATION BLANKS.—The following well-grounded complaint concerning these comes from a distinguished physician of Catlettsburg, Ky.:

Editors American Practitioner:

I would like to call the attention of the profession in Kentucky to the blanks recently distributed for the purpose of carrying out the design of the registration law passed by our legislature last session. It is much to be regretted, after the assiduous labors of many of our medical brethren in effecting the passage of such an important and much-needed law, that its grand designs should be rendered nugatory by the form of blanks furnished. To explain, I recently received two sheets for each as records of births and deaths so arranged that the former will contain but six separate recorded cases on each sheet, and this is all to make my year's report upon, with no instructions save to "fill and return to the county clerk at the end of the year." These blanks do not designate when the year begins and when it closes; no place for the signature of the physician, etc., reporting; for date, post-office, etc.; do not contain enough blanks for a year's business. Besides this, suitable blanks ought to have been distributed quite early in the year. It will be very readily imagined how many and great will be the inaccuracies in filling up these present forms. Did it not occur to the person getting up these blanks that it would have been much more convenient, and much greater accuracy would have obtained, if the sheets had been sufficiently large, with parallel columns from top to bottom; giving a space after the first column for parents' names, for each class of information needed, with proper upper marginal headings to specify year, etc., for making report? Thus one sheet would have recorded more cases than four or five of the present.

My desire for the success of the present law, and that it should not be brought into disrepute by the causes above stated, so as to meet with the fate of a former law of this sort, is the only apology I offer for this letter, which I hope will at least direct attention to this vitally important matter.

Very truly, S. V. FIROR, M. D.

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*Any of these works may be procured on application to Messrs. John P. Morton and Company, Louisville, Ky.

THE AMERICAN PRACTITIONER.

NOVEMBER, 1874.

> Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Communications.

THE DUTIES AND THE RESPONSIBILITIES OF THE PHYSICIAN.*

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GENTLEMEN OF THE MEDICAL CLASS: These exercises, introductory to a long season of arduous labors, are devoted chiefly to you, but we are happy in having a large portion of the public to hear the lessons addressed to you. They are deeply interested in all that is to minister to lives of usefulness in the profession which you are endeavoring to enter. At the threshold of this undertaking it is proper for you to understand that this medical department does not invite you to repose on a bed of roses. Nothing short of most devoted labor can prepare you for the duties of the physician. Since the days of the great worthies in the medical profession, who won renown with such helps as were in existence then—such worthies as Sydenham, Mead, Haller, Werlhof, Torti, Boerhaave, and Pinel—immense fields of science in medicine have been discovered and thoroughly worked; fields that urgently and daily demand an intimate acquaintance with them on the part of every physician, but which were utterly unknown to even the giants of former ages. Helmholtz quotes from the chorus of the Antigone of Sophocles the mighty questions, "Who can survey the whole field of knowledge? Who can grasp the clews and then thread the labyrinth?" If those were momentous questions to the grasping and mighty intellect of Athens four hundred and forty years before the birth of Christ, what are they now in our profession alone, nearly nineteen hundred years after that enlightening birth occurred—a birth that gave new springs to nearly every throb of the human intellect? At the beginning of the past century Boerhaave held, in the renowned University of Leyden, the chairs of botany, chemistry, pharmacy, and clinical medicine; but now, toward the close of the nineteenth century, there is not any one man on the earth that could acceptably teach all those departments of science. Because of the want of "clews" among the contemporaries of Harvey, by which "the labyrinth" of the circulation of the blood could be "threaded," Harvey was supposed to have discovered that grand element of physiology, the manner of the circulation; but when the sharp eye of the Italian Malpighi, with the lenses of the microscope, surveyed this circulation, he not only dissipated the guesses of Harvey, but presented a new and a valuable world to the thoughts of medical men. These are but glimpses of this interesting theme; but, meager as they are, they must awaken thought—earnest thought respecting the labors necessary to enable you to seize "the clews and thread the labyrinths;" for threaded they must be, or you will be disastrous failures.

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*An Introductory Address, delivered in Public Library Hall October 5, 1874.

Let us take a brief survey of an all-important department of medical knowledge that owes its birth to very recent times. I refer to the laws of physical geography, from which have already sprung sanitary science in its broadest scope, climatic therapeutics, and preventive medicine. The science of physical geography was almost created by Alexander Humboldt. In the Middle Ages the sanitary wisdom of the best governments was directed to two objects, the segregation of lepers and the partial establishment of free baths for the poor; the latter, as Renouard's History of Medicine says, "often spreading the diseases they were intended to prevent." The civilized world has awakened to the vital fact that it is the business of governments to understand and enforce sanitary truths; and the doctor who is ignorant of these requirements must be looked upon, as he is, a cripple in his profession. This medical school early selected as its motto, as its recognition of its duty, the lofty sentiment, "*Sanos Sospitare Ægrosque Sanare*," thus proclaiming as its great mission not only the cure but the prevention of disease. No truth is better established than this: that in every community there is too large an amount of sickness that should be prevented, too many deaths that should not occur. Look at the expressive announcements of history. The Pandects of Justinian, quoted by Dr. Jarvis in one of the ablest and most exhaustive papers on "The Political Economy of Health" that have ever appeared, show that "in Rome, from two hundred to five hundred years after the Christian era began, the average duration of life in the most favored class was thirty years." In the present century, Dr. Jarvis says, "the average longevity of persons of the same class is fifty years."

> "The records of life and death in Geneva, Switzerland, for the last three hundred years are more complete than any others now known. These show that the expectation of life from birth, or the average longevity, was 21.21 years in the sixteenth century, 25.67 years in the seventeenth, 33.62 years in the eighteenth, 39.69 years from 1801 to 1833, 40.68 years from 1814 to 1833. In the sixteenth century 25.92 per cent of the children died in their first year; in the nineteenth century the deaths of this age are reduced to 15.12 per cent. In the sixteenth century 61.11 per cent perished before they reached maturity at twenty; in the nineteenth century this mortality is reduced to 33 per cent. In the sixteenth century 3.08

per cent passed their threescore-and-ten; in the nineteenth century 17.94 per cent reach that length of life."

Mallet's Annals of Hygiene show, according to Dr. Jarvis, that as large a proportion now live to be seventy years of age as lived to be forty-three in the sixteenth century.

These gains in vital forces, which are gains in the well-being of communities through improvements in methods of living that were inaugurated by medical men, are but a portion of the blessings secured by properly-directed medical labors.

There are many correlative forces of this character that deserve and would well reward attention; but they are too vast to be treated hastily, and on this occasion time would be too brief to attempt any thing approaching fullness in elaborating them. At a single element of interest in connection with this part of the theme I must take at least a glance, because its meaning is not properly recognized, and it is of profound interest to every individual member of society. This element of correlative forces is found in the truth, cautiously deduced by the best English authorities from abundant and well-established data, that for every death there are constantly sick at least two persons. This gives 730 days' sickness and disability for every death. Dr. Jarvis shows that even in Massachusetts in 1870, renowned as that commonwealth deservedly is for its sanitary solicitude and vigilance, "there was a loss in the effective period equal to 276,461 years by premature death, and 24,553 years by sickness, making 301,014 years' loss of force or productive power in a single year. There was the same proportionate loss in the previous year, and there is no reason to hope that it will not be the same in ratio of the numbers of the living for years to come, unless some happy change shall come over the sanitary habits and conditions of the people of Massachusetts." If these are the demonstrated results among a people as well protected by nature and by sanitary regulations as those of Massachusetts, what must be the appalling figures in the vital statistics of communities that have not a tithe of the natural and legislative protection that guards Massachusetts? These are questions that affect the vital forces not only of every community, but of every family and of every individual. These are momentous matters that force themselves upon every medical man. He can not evade them even if he desires to do so; and there is surely not a human being that supposes, no matter how fervid and fruitful his imagination may be as to the potency of pills, powders, and lotions, that they could even seriously invade that domain of figures in the devastated vital statistics of Massachusetts. Yet the demand is imperative that these figures shall be materially changed toward the welfare of the community. Science is widening its domain, and with this widening the people at large are greatly increasing in useful knowledge. They feel that they have a right—and they are fully justified in the judgment—to demand of medical men the possession of an accurate philosophy, of thoroughly-ascertained truth, for the arrest of these frightful devastations in the political economy of health—devastations that roll their waves of evil to the door of every member of society. Latham, in his "Sanitary Engineering," expressly says, "Health is the capital of the laboring man." Is it not the working, the essential capital of every human being? The time is rapidly coming when each medical man will be weighed by the community in sanitary scales, and all "who kick the beam" by reason of lightness will have indelibly scarred on their foreheads, if there is room for it, the handwriting that horrified the vision of the Chaldean king: "Mene, mene, tekel, U-Pharsin." The intelligence of the people will dispose of all light-weights in these essential features of medical science. All who are weighed in these sanitary scales and found wanting will receive from the people a diploma on which is written in very legible characters, "The kingdom you sought by impoverished means is given to others."

This planet was assigned to man as his heritage. The estate has long been in a troublous state of litigation, but a court of equity will finally give it to the holder of heritable rights when they are settled. The vast ocean of atmosphere which floats above and around us is filled with issues of life or death, according to our mode of using them. The seas which roll their mighty forces around our domain of land are an integral part of our possession, but to enjoy them we must understand them. There is not an element of the land that does not forcibly appeal to our profoundest study for a perfect comprehension of its relations to the life and well-being of man. In the "fathomless abyss of stars" our planet seems to be almost a mere nothing. The sun himself, mighty in magnitude as he seems to us, powerful as he is over the pathways of the earth, is almost lost in the eighteen millions of stars that Herschel found in the misty nebula called the milky way, or galactic circle. But insignificant as the earth seems to be, it is a part of the Cosmos; and as far as explorations have taught us any thing in relation to the infinite number of other members of the Cosmos, our planet, small as it is, is the most cherished one in the universe; it is the only one known to us that knows its Creator, its origin, its destiny. The more thoroughly we study its variety of forms, its climates, its laws, its adaptation to specified purposes, the more we admire all its multiform purposes; and in surveying it through the heights and depths of physical geography, thus learning what can be made of it for the benefit of mankind, and exploring through the historic periods of the human race, we unhesitatingly accept the philosophy of Tennyson in his noble utterance:

> "Yet I doubt not through the ages one increasing purpose runs,
> And the thoughts of men are widened through the process of the suns."

The "increasing purpose" running "through the ages" is the restoration of man to his primitive heritage of the earth, and to all things that are therein contained. Among the great means toward this end must be the conquest over all avoidable sickness, all premature decay and death; because this of itself marks other large fields of conquest.

I have shown you what great gains have been in recent times made upon past centuries. These are a hopeful, a cheering earnest of what is yet to be won; but we must consider "nothing won while aught remains to win." In the light of observation and experience, in the blaze of positive and manifold gains, our pathway is unobstructed; the goal stands plainly before us in the beckoning beams of a golden sun. I know of nothing in human enterprises so well calculated to stir all the soul within us as a desire to participate in these exalting and ennobling objects—of doing the greatest good to the greatest number, and making this good a fixture in the progress of humanity. Nothing whatever is either exalting or ennobling that does not improve and increase the welfare of mankind. When we move among the certainties and achievements that medical philosophy has gained in its comparatively recent career we may feel that we are turning our backs upon "the time- and sin-defaced, fallen Adam," and advancing toward the primeval possessor of Eden, who, as old Bishop South says, moved in a light that "gave the soul a bright and full view into all things, and was not only a window, but a prospect." . . "Like a better Archimedes, the issue of all his inquiries was an *eureka*—an *eureka* the offspring of his brain without the sweat of his brow. Study was not then a duty; night-watchings were needless; the light of reason wanted not the assistance of a candle." He adds, "Aristotle was but the rubbish of an Adam, and Athens but the rudiments of Paradise." We tread in this notable direction only when we fill our minds with a knowledge of all the capacities of earth for the habitation of man. Learn what is evil and shun it, and pursue only that which is good. This is being "of the earth earthy" for a purpose that exalts.

Within the past fifty years we have learned more of this planet, and of all the planetary forces that influence it, than was acquired in all the cycles of time that preceded the past fifty years. We not only bring worlds, that are so distant from our planet that it takes centuries for a ray of light from them to reach us, within the range of telescopic vision, but we analyze the atmospheres of these distant worlds, and know their composition as thoroughly as we know that of the one which we breathe. Jacob's ladder, resting upon the earth at Haran and reaching the heavens, did not enable him to climb; but the spectroscope, with its adjuncts, enables us to climb into infinite space, and journey through vast areas of countless worlds. M. Wurtz, president of the French Association for the Advancement of Science, at the recent meeting of that body of savans, beautifully announced in his address, "Marvelous conquests of physics, which reveal at once to us that abundance of forces which environ the sun, and the simplicity of the constitution of the universe!" But while physicists are thus usefully walking among these far-distant worlds, what are we doing for the earth? Are we not plodding along in our geographical studies in ruts older than the false guides of Mercator's projection? Is not a large mass of that which we call geography, as taught in the schools, as useless rubbish as geomancy itself, and quite as void of any good? When we look at the impoverished material, if material it is, thus doled into the dulled ears of pupils, can we feel astonishment at the deplorable ignorance that prevails too extensively with respect to these subjects—subjects too that are vital forces? In these fields of knowledge there are ears that hear not, dormant faculties that perceive not, and instead of eyes

> "that should have shot
> O'er flow'ry vales to distant sunny hills,
> And drawn, with joy, the vast horizon in,"

they are eyes that are "dead in their piercing rays."

Under the scholarly gifts, the mechanical industries, and the rare skill of the superintendent of the State School for the Blind, that institution has maps made for teaching the physical features of countries, by which blind children readily learn the character of the ground surface, and accurately trace the isothermal lines. This is an educational necessity not yet provided for in schools for seeing children. Is it not strange, or is it shameful, that apparatus essential for the acquirement of any geographical knowledge worth having should have first been developed in the Kentucky School for the Blind?

It will be an auspicious day for empires and states—for the whole human family—when it shall be a prerequisite for the practice of medicine that the candidate for that responsibility shall be able to show that he has mastered Keith Johnson's Atlas of Physical Geography; Elisée Reclus's two great works, one on the earth, the other on the ocean; and Flammarion's volume on the atmosphere. The knowledge of isothermal lines and of their meaning is of itself a knowledge of an immense volume of climatology; and every human being, every plant on earth, from the palms of the tropics to the club-mosses of the arctic circle, are simple expressions of climatic forces. Reclus says, with perfect truth, "If man wishes to become master of the forces of nature, and to make them work to his advantage, the first condition is that he shall understand them." Where are these masters to be found?

I have been much gratified in seeing an awakened attention in many high quarters to these vast considerations. At the recent meeting of the British Association President Wilson, of the Royal Engineers, in his survey of geographical progress, speaks most depreciatingly but becomingly of appliances for teaching geography in the minor schools of Great Britain. "What is absolutely needed," he says, "are models or relief-maps, wall-maps, and globes. The use of models as a means of conveying geographical instruction has been too much neglected in our schools. If any one considers the difficulty a pupil has in understanding the drawing of a steam-engine, and the ease with which he grasps the meaning of the working model, and how from studying the model and comparing it with the drawing he gradually learns to comprehend the latter, he will see that a model of ground may be used in the same way to teach the reading of a map of the same area." . . . "In our wall-maps we have been too much inclined to pay attention to the boundaries of countries, and to neglect the general features of the ground." Yet, to the medical man at least, "the general features of the ground" and their relations to bodies of water of differing temperatures, or mountain-ranges, and the direction of these ranges, are every thing; the boundaries are comparatively nothing. That vast subject, climatology, which should be the alpha and omega of every physician, is perfectly dependent on a minute acquaintance with "the general features of the ground" and conterminous bodies. Thus, for example, intermittent fever is not prevalent above the forty-fourth parallel of north latitude on the Atlantic coast of North America, but on the western coast of Europe this form of fever is annually severe as high as the sixty-second parallel of north latitude. The latitude of Fort Sullivan, Maine, is eleven degrees farther south than that of Edinburgh, Scotland, yet the annual mean temperature of Edinburgh is five and a half degrees higher than that of Fort Sullivan. The isothermal line on the western coast of Europe that marks the northern boundary-line of intermittent fever, at the sixty-second degree of latitude, sinks to about the forty-first degree on the eastern coast of Asia. What can any physician know of any climatic influence in disease who does not understand the meaning of the facts in physical geography which I have just given? These are comparatively the merest a b c of this great subject; yet how many are there, do you suppose, who could give even an inkling of the meaning of these truths? There is scarcely a day in the career of a practicing physician when in the treatment of disease he may not draw practical wisdom from a correct knowledge of climatal influences. Men may occasionally seem to "get along" in the profession without knowing much on this subject; but then I have seen an occasional case that appeared to "get along," as it is called, without knowing any thing on any subject. These are exceptions; the rule is quite different. Before much stress can be laid on such events it is important to know how the victims "got along." We do not often hear of this through the sonorous tones of a trumpet.

In the great movements that are astir among all the prominent centers of civilization for protecting the health of communities there looms up among the heights of sanitary science and philosophy a beneficent power that is actively sending its healing rays among the dwellers of the earth. I refer to climatic therapeutics. We have already accumulated a large mass of facts, in regions of diseases hitherto unsuspected of such relationship, which conclusively demonstrate that there are climatal conditions which produce these diseases, for the cure of which, while the climatal conditions remain, the powers of our materia medica are futile. Low sea-levels, the borders of sluggish streams, narrow valleys inclosed between mountain-ranges, have long been known as creators of diseases belonging to their climatal conditions; but observation has taught us that there are other forms of disease produced by climatic influences that were formerly unsuspected of such origin. These conditions may in varying degrees extend over a large range of country; but be very careful to remember that they may be restricted to a single dwelling; a single house may have climatal conditions foreign to the climate of the neighborhood. They may be very visible or palpable; they may have to be bored for as you do for water in making an artesian well. Hundreds of conditions must be studied; each circumstance must be carefully, circumspectly surveyed and considered; each fact, each phase of fact, must be kept in its proper place; each clew must be appropriated to its own labyrinth if we are to thread our way successfully in the paths of this knowledge. In preparing to administer aconite or conia you have to be on your guard lest you bring on disaster. The paths to which I am directing your attention require equal vigilance and accurate knowledge and circumspection. In the medical profession nothing whatever should be done on any other terms than these.

What are the facts about those climatal conditions of diseases to which I have just called your attention? We know beyond the shadow of a doubt that there are in sea-air potencies of cure for some of the diseases of the heart far beyond any of the powers of our materia medica. Our distinguished countryman, Dr. H. I. Bowditch, has been conspicuous in demonstrating by facts piled upon facts that there is an essential connection between consumption, damp dwellings, and neglect of hygienic powers; thus leading that fell disease into the domain of preventive medicine. I doubt whether any thing has been more perfectly demonstrated than this. Hence the subsoil plow, with proper drainage, is more effective over the prevention of the disease than all the oil, valuable as it is, that has been drained from the livers of the codfish is for its cure. An able medical writer in one of the English quarterlies, who does not seem to have heard of the masterly labors of Dr. Bowditch, says, "In Salisbury, Ely, Rugby, Banbury, and other towns, the introduction of a system of sewerage was so managed as to dry the subsoil to a considerable extent. The deaths from consumption in those towns were reduced by from one third to one half their former number. In Leicester the same truth is enforced, and with it we may do as we did in our school-boy days with our arithmetical sums—prove the result by a species of going backward. In Leicester, during the progress of the sewerage works, the subsoil water was greatly reduced. The death-rate from consumption fell forty per cent. When the works were completed the subsoil water rose. The death-rate of phthisis rose with it, although it still remains far below the former rate."

In regions elevated considerably above the sea-level consumption, according to the observations of Mühry, the sanitary chief of Saxony, and of other observers quoted by him, diminishes to almost a nullity. "In the Bristol sanitary engineering deaths from typhoid fever have been diminished thirty-three per cent, in Salisbury no less than seventy-five per cent." Rhode Island, Maine, Vermont, New York, and Massachusetts abundantly confirm these statistics on consumption and soil-moisture. In the mediæval ages a medical poet, in surveying the contortions and surgings of what were called medical doctrines, despairingly asked, "Driven thus from system to system, shall we never be able to throw out an anchor?" In full view of the lustrous experiences around us, from a thorough investigation of all the pathological and physiological problems involved in the subject, I feel that we stand on firm ground in declaring that in climatic therapeutics and hygienic measures we may not only throw out our anchor, but with full assurance of faith find, in nautical phrase, "holding-ground" for the anchor. In the primeval doom sickness was not even alluded to as a part of the omnipotent sentence; hence we wrong ourselves in deeming its presence among us as unconquerable, as invincible to our properly-directed exertions. Myriads of people pass long lives without sickness, but no one escapes the pronounced decrees, "Dying thou shalt die," and "In the sweat of thy face shalt thou eat thy bread." The prophetic seers of the Hebrews, in depicting the glories of the Messianic reign, reveled in portraying great changes in the physical condition of the ground surface. The "mountains and hills were to be made low, the valleys were to be exalted, the crooked paths made straight, and the rough places were to be made plain." These are intimations that we may beneficially change the ground surface, provided we know how and when to do so. These changes are already around us; the glistening "sunlit dews" betoken the approach of dawn; "the eyelids of the morning" are opening from the sleep of ages; the sunbeams of a brightening day leap from peak to peak of the mountains, and roll down their floods of living light along the slopes, cheering the swelling vale, and lighting up sea-levels and river-basins with recuperated energies, giving noble promise of a new earth wherein dwells health.

I am well persuaded that I speak "the words of truth and soberness" in the utterance of a creed destined to become universal. It is, "When all men and women live in properly-placed and constructed houses, and at all times attend carefully to the hygienic laws of mind and body in themselves and offspring, then will consumption, like many kindred evils, be wholly eradicated, or made comparatively harmless in its influence on the human race." This is the creed uttered by that great master of the subject, Dr. H. I. Bowditch, and it is consonant with all the enlightened experiences that speak from observation of facts. All data that can be relied upon conclusively show that the administration of medicine can not extirpate consumption from the regions of the earth where it prevails, causing more than one fourth of the deaths in the United States. A large, an extensive, an abounding series of observations and statistics demonstrate that it may be torn up by the roots and utterly destroyed by proper hygiene, public and private, as certainly as a good farmer extirpates weeds from his land. Upward of a century ago the Grand Duke of Tuscany utterly extirpated from the Maremme di Lucca pestilential visitations that had been annual for centuries. From July to November every year the inhabitants of the fertile and populous Maremme were compelled to absent themselves from their homes. Yet this was once a part of the great empire of the Etruscan civilization. In the hands of the Etruscans it was one of the healthiest places in Europe. It has become again one of the chief health-spots of southern Europe. Gondolpho, northwest of Lake Turnus, was for centuries devastated every year with pestilence. In 1611 Pope Paul V.

removed the cause of this annual visitation, and from that time to the present Gondolpho has been conspicuous for its healthiness. And what is there in mortal achievement and excellence that can be compared to that engaged successfully in removing from a community, by the annihilation of the causes of sickness, the fears, the sufferings, the woes, and losses through sickness? What emotions fill the heart as we see these evils pass away "as," in the language of Bulwer, "the vapor that rolls from the face of a lake to which the sunlight restores the smile of a brightened heaven."

In certain elevated regions that markedly affect the barometer cancer, that deadly enemy of mankind which baffles all investigated therapeutics, is almost entirely unknown. Its haunts are in river-valleys or their equivalents. The writer of whom I have spoken says, "Damp air, associated with alluvial soil and heavy barometric pressure, appears to be a predisposing cause." Within these consecrated sciences—consecrated to the highest earthly interests of man; physical geography in all its details, sanitary experiences, climatic therapeutics, and the indubitable results of preventive medicine—rest the hopes of a beneficent future for empires, states, cities, and individuals. Their teachings are as applicable to families and to individuals as to large collections of people.

The accumulated facts on these subjects, all speaking one language, gathered from numerous regions of the earth by hundreds of observers, are signs of promise that justify the highest hopes. These are far more likely to grow than to diminish. These are fields laden with fruits that show how nations may be healed. They demand of you all the culture you can command. Less than that will lead to failure. In the walks of the healing science you can no more afford to neglect them than in mastering the mysteries of arithmetic you can make progress without a knowledge of the powers of numerals. The highest department of medical philosophy is that which prevents disease. The harvest is abundant, but the laborers are few. You may think they are crowding one another. Daniel Webster was once consulted by a young friend respecting the choice of a profession. Mr. Webster suggested the law; but the young man objected, asking if that was not already crowded. "By no means," said Mr. Webster; "the lower rooms are jammed, but the upper rooms are almost completely empty." Let me urge you to fasten your aims on these upper apartments rather than on the ground-floors and cellar-doors of the temple.

Ever bear vividly in your minds that you are to be priests at one of the most sacred altars known to humanity; hierophants of the grandest knowledge intrusted to mortals. The enlarging domain of the sciences is shaping the destiny of the medical profession for a higher, holier, nobler sphere of duty than it has known in the past of its history. This profession has a brighter, loftier Pisgah than that from which Moses surveyed the promised land, but which he was prohibited from entering. From your Pisgah you may survey these vast, extended plains. You may see a land in which by "crystal streams trees grow, whose fruit is for the healing of the nations." These fruits are sanitary science, climatic therapeutics, and preventive medicine as important parts of physical geography, and into all these you may freely enter.

But while I thus point you to the highest exaltation I would not have you to be negligent of the past of our profession. That wonderful master of English art, one of the most original in his conceptions, one of the most successful of all that have lived, Owen Jones, says, "To attempt to build up theories of art, or to form a style independently of the past, would be an act of supreme folly. It would be at once to reject the experiences and accumulated knowledge of thousands of years. We should regard as our inheritance all the successful labors of the past; not blindly following them, but employing them simply as guides to find the true path." This is the useful lesson I wish to impress upon you at your entrance upon the curriculum of this school. The expanding forces of knowledge have burned "the wood, the hay, and the stubble," but in the embers are gold and silver, all the more precious because of the crucible through which they have passed. Think not that Albertus Magnus, Morgagni, Lancisi, Avicenna, Torti, Pinel, Sydenham, and Mead passed useless lives because they did not know even the alphabet of the vast readings that stand conspicuous and inviting before you, and which are positively essential to you as foundations for usefulness and honor. For the themes which I have only adumbrated before you, you will be the better equipped by mastering, not what the giants of old conjectured, but all that they knew. You have not their valid excuse for failure in the great utilities of their profession; you have facilities of which they knew nothing, of which they could know nothing, for lading yourselves with fruits in value far beyond all that grow in the gardens of the Hesperides.

Do not take up the very erroneous impression that because I am urging upon you these great armaments for a successful career against disease I am indifferent, or wish you to be indifferent, to the powers of our materia medica. No one can have better reasons for faith in the therapeutics of our profession than I have; but I wish you to put on the whole armor that belongs to the medical profession. I now proceed to introduce you to an element of study in which the powers of the materia medica play a conspicuous part.

The important means for improving your opportunities to which I now propose to direct your thoughts are the utilities of Clinical teaching. If not a better, I am an older soldier than you are, and, as an old campaigner, I may glean from the camp-fires of experience and observation something that may be useful to young recruits. The means to which I now refer are clinical instruction. Of proper clinical teaching you should make all the use you can; with that which is worthless you can not have too little to do. In one of the most notable letters ever written, sent by one of the greatest intellects that have existed to an assembly of two races of people, this very singular and striking truth was uttered: "All are not Israel who are of Israel." In parity of language we may say, All is not clinical teaching that is of clinics. Hermann Boerhaave, of Leyden University, was the most renowned teacher of medicine in his day. I have already quoted from Helmholtz an enumeration of the multifarious professorships that Boerhaave attempted to fill. Among these was one devoted to clinical teaching. He was indeed to a great extent the founder of clinical teaching in Europe. We can measure with perfect accuracy through Boerhaave's aphorisms, even when read through the glosses of Van Swieten's Commentaries, the character of this clinical teaching. He was in the habit, as one of the adornments of his clinical teaching, of measuring the chances of the recovery of patients by the amounts of saliva poured from the salivary glands under what he regarded as the benign influence of mercury. Patients who poured forth a pint per hour were considered by Boerhaave in a more hopeful state of convalescence than those who exhibited the pitiful result of only eight ounces per hour. This, it is true, is only one brick from the edifice, but it is a good one. It would be easy to multiply examples similar to this specimen. I have no doubt that Boerhaave could have delivered as practical and as intelligent a lecture upon the roots and dialects of the Aryan language, a knowledge of which was not in existence then, as upon any clinical case. Upon all such teaching, much of it reaching far down into this century, Bichat wrote an obituary notice, which will be a recognized and standing epitaph upon all such medical follies. "What," he says, "is the value of observations from those who do not know even the seat of the disease?" By this light you may know them. An excellent criterion is found in the fact that the clinical teacher shall have a large experience as a practitioner, and shall be able to portray with the mastery of an artist the diseased conditions of the clinic before him. A man may be an excellent practitioner and be a very indifferent clinical teacher, but he can not be a clinical teacher of any excellence unless he is a good practitioner. There were many physicians in Paris who were the equals, as physicians, of Trousseau, but he has never had any rival as a clinical teacher. He was one of the most thorough masters of the literature of his profession that France has produced, by which he was enabled to spread over his clinici all the medical treasures of all ages, including his own. In this invaluable department of his offices as a clinical teacher he stands without a peer. This leads me to urge upon you the uses of didactic teaching and the study of the great lights in the profession, in order that you may fully understand every element of the clinical teaching you receive. Experience has joined them as bone of one bone, as flesh of one flesh; let no man attempt to put them asunder.

This department of the university founded clinical teaching in 1837, in Louisville, and conferred renown upon it. Prof. Caldwell was the clinical professor, but he had the good judgment to select Dr. Lewis Rogers as his assistant, and the assistant was the clinical teacher. It would have been difficult to find in the city his equal for the work. That which Dr. Rogers thus started on a successful career has grown to great magnitude, while the founder of this important success, we are happy to know, remains among us in the prime of life and usefulness. Prof. J. B. Flint delivered the lectures on clinical surgery. In 1839 Prof. Daniel Drake was elected professor of clinical medicine. For three years the students walked through the wards in the hospital and heard the lectures at the sides of the patients' beds. In 1840 the faculty, disapproving of this method of teaching, erected a building for clinical teaching at the hospital. In a few years, on account of the growth of the school, this original building was found to be too small, and in 1849 the building was surrendered to the city council on condition that the city would construct a more commodious building, and during the summer of 1849 this was done. This building was used until the increasing wants of hospital service required that the hospital should be greatly enlarged, the additions to the hospital creating a necessity for a new structure for clinical teaching. This new structure is the one now devoted to this purpose. In addition to these means the university established a dispensary, which furnishes a large amount of clinical material during the entire year, and the college clinics are a fruitful resource for preparing students of medicine for becoming practitioners. The university has spared neither labor nor expense in promoting the success of clinical teaching.

But I call your attention to clinical instruction, not simply because it gives you topographical views of diseased actions and aids in furnishing you means of recognizing the various phases presented by pathology, but to introduce you to a delicate perception of professional character that you should never forget. In every approach that you make to the precincts of suffering, no matter where it may be, you must bear in mind that your feet are in pathways ever sacred to the twin graces of mercy and gentleness. They should clothe all your professional thoughts and movements as a well-fitted garment. The entrance into the room devoted to clinical teaching should be recognized as the introduction to that deportment that should always be characteristic of the healer of sufferings and woes. I can not do as well in any other way in impressing these refined but very necessary lessons upon you as in repeating to you the teachings on these points of one of the greatest exemplars of professional duty the physicians of this city ever had among them. In a noble lecture on clinical surgery, in 1856, in the amphitheater of the City Hospital, Prof. J. B. Flint said:

"The apartment in which we are assembled is called a 'theater.' and our exercises, not unfrequently, 'theater clinics.' But assuredly no dramatic entertainments are to be expected here under my administration; no *display* of professional or unprofessional wit or rhetoric or skill intended to 'bring down the benches' in vulgar applause; especially no ministering to that prurient appetite for operations which has sometimes converted the hospital theater into a scene of bloodshed scarcely less revolting to humanity than the gladiatorial spectacles of its pagan prototype. If your ideal of a surgical professor represents him as an enterprising vivisector, with his sleeves rolled up, declaiming of his varied exploits with the knife he brandishes in his bloody hand, alas for its realization in the person before you!" . . . "On the contrary, gentlemen"—and this is that part of Dr. F.'s teaching I want to impress on you ineradicably—"may I not expect you to co-operate with me in rendering our future interviews here as faithful representatives as possible of that quiet, unostentatious, beneficent event—the physician's visit; differing chiefly in the immaterial particular that, instead of going to our patients, they are brought hither to us. If these unfortunate objects of our care and study retire from our presence, after one or many consultations, comforted, encouraged, relieved, or in the way of relief, whether our administrations in their behalf have been simple or elaborate, gentle or severe, a good clinical lesson will have been given, and I shall have acquitted myself alike to them and to you."

May I join in these admonitions on conduct, these lessons to the doctor as a doctor? In a sense infinitely truer in its application to any clinic in your charge than, to say the best, about the dubious teaching of Lord Brougham respecting the relations of the lawyer to his client, whether that clinic be in a miserable hovel, in the ward of a hospital devoted to the vilest, or in the palatial mansions of the wealthy, the great, or the powerful, that patient must be your world, the cynosure around which you are to gather all the consolations, comforts, and blessings that a high professional equipment and an elevated humaneness can command. Whatever distinctions society may make concerning castes may be a species of law to society. You can not lawfully recognize them in your duties to your sick charges. Kings or queens and pariahs are on an equality in your professional ministrations. Around your profession cluster the highest interests of the human race, the holiest affections, the most lofty relations. As your manhood may be noble and complete, the chances are that your professional aims and movements may spring from this good soil into the best and grandest professional fruitions. You can never gain any thing by sinking your manhood in pursuing your profession. A Frenchman who committed the common blunder of making his manhood subservient to his occupation discovered his great error only on his death-bed, and he ordered this appropriate epitaph to be engraved on his marble-slab: "Born a man, died a grocer." There was not any thing in his occupation, nor is there in any other honest one, to stifle the activities of the largest humaneness. It will be no credit to you to have emblazoned on your monumental marble, "Born a man, died a doctor." Rather let it be, "Although diligently engaged in the great duties of a doctor, he never forgot that he was a man;" that all that concerned man concerned him, and demanded the exercise of whatever can ameliorate or exalt the condition of man; in all things like Cowper's physician,

> "whose humanity sheds rays
> That make superior skill his second praise."

REPORT OF THREE CASES OF HEPATIC ABSCESS, WITH REMARKS.*

BY L. S. M'MURTRY, M. D.

Since the means of transportation have arrived at such a degree of perfection in this country that persons are transferred from remote parts with remarkable rapidity, the physician may at any time meet with diseases which are contracted in other and distant portions of the republic. During the past year, spent in the semi-tropical region of Louisiana, I had under my care several cases of hepatic abscess, a disease which, though of more common occurrence in warm climates, is not entirely unknown in this region.

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* Read before the Boyle County Medical Society, September 7, 1874.

CASE I.—D. D., aged forty-five years, white, laborer, admitted to Charity Hospital, New Orleans, November 11, 1873; had an attack of dysentery in August, continuing for several weeks, and which had left him in feeble health; had suffered from malarial fever frequently during the three years previous. No dysenteric symptoms had occurred for a month prior to admission to the hospital, at which date he was slightly jaundiced; appetite poor; complained of pain in right shoulder and hypochondrium, increased by deep inspiration; tenderness in this region on slight pressure. A physical examination of the chest gave a negative result. The line of hepatic dullness was extended upward, and percussion there gave sharp pain. The pulse was normal in character, being 76 per minute; temperature 99° F. The urine was very highly colored, but otherwise normal. Suppurative inflammation of the liver was suspected at the first examination, and the diagnosis was pronounced a few days afterward. The treatment instituted at this time and continued throughout consisted of tonics and concentrated food.

During the following ten days these symptoms remained, with the addition of hectic symptoms, occurring usually in the afternoon. Quinine then became an element in the treatment. During the tenth night after admission the abscess opened into the right lung, and when we made our visit in the morning the patient had expectorated a large tin basinful of pus mixed with bloody material. The microscope showed that broken-down liver-tissue was contained in this matter. This expectoration continued, though in less quantity than at first, for six weeks, when the patient succumbed to the heavy drain upon his system. No autopsy could be obtained.

Case II.—H. E., aged twenty-four years, was admitted to the same ward, in October last, with dysentery. This patient had been a very robust young man, but had suffered from malarial fever for some weeks, when dysentery came on, and he was admitted to the hospital in a very feeble condition. The dysentery gave him much suffering, and was not amenable to treatment in the hospital. Some days elapsed before attention was attracted to the liver, when it was discovered to be enlarged, the line of dullness being extended above and below. The pulse was rather rapid, and hectic symptoms were present. The temperature was continually elevated one or two degrees above the normal standard. The treatment was expectant and supporting.

On December 12th our patient died, and an autopsy was made twelve hours after death. On opening the abdomen the liver was discovered to be very much enlarged, and in removing it from the abdomen the abscess broke and flooded the whole table. The liver had been converted into an immense cyst. The bowels exhibited the characteristic lesions of chronic dysentery.

Case III.—W. J., aged twenty-six years, a night hack-driver, was admitted to Ward 20, Charity Hospital, January 20th. He stated that he had been sick for a week past, previous to which time he had been in good health for years. He complained of pain in the right side and shoulder, loss of appetite, and digestive disturbances. The pulse was 82, and normal in character; temperature 99.2° F. On physical examination the upper line of hepatic dullness was found to be extended about an inch, and a less extension below. Manipulation in this region produced pain. The diagnosis was pronounced as *acute hepatitis*, and the following prescription ordered:

℞. Inf. Pruni Virginianæ, . . . fl. ℥ iv;
Acid nitro-hydrochloric dil., . fl. ʒ j.
M. S. A table-spoonful every four hours.

Concentrated liquid food was ordered, and an anodyne administered at night.

There was very little change in the symptoms during the two weeks after admission, and the treatment was continued. About this time the abscess opened into the right lung, and the patient began to expectorate pus, though not in such large quantity as the patient referred to above (Case I). The expectoration continued for several days and gradually diminished, the liver being reduced in size. The patient was discharged on February 6th, and more than a month afterward I saw him driving his hack at night, when he informed me that he had been well since his discharge from the hospital.

These cases of suppurative inflammation of the liver contain some features of interest as to the pathology of the affection, and especially as to its etiology. In Cases I and II an attack of dysentery preceded the symptoms of hepatic abscess.

Dr. Budd is of opinion that dysentery stands in a causative relation to abscess of the liver; that either by suppurative phlebitis or by absorption of septic material from the bowel the radicles of the portal vein conduct the destructive material to the liver.* In Case III dysentery did not precede the abscess. As causes of hepatic abscess we would place at the head of the list intemperance and indolence, combined with heat and malaria. However, Cases I and II show that if dysentery is not the cause of hepatic abscess, it is a very unfortunate complication; and, notwithstanding the opposition, we think Dr. Budd's view of the pathology of this affection worthy of very careful consideration.

That the passage through which the discharge is made is a prominent element in prognosis is suggested by these cases. If the abscess opens into the pericardium, pleura, or peritoneum, a fatal result very soon follows, as has been shown by the reports of the English medical officers of the Indian service on this subject. If the abscess opens through the wall of the abdomen, or an outlet is furnished by the trocar, air enters the cavity of the abscess, and the result is usually fatal. The most favorable outlet is through the lung, and our Cases I and III would indicate that this is the most favorable when there is the least amount of broken-down liver-tissue discharged. In Case I there was great destruction of hepatic tissue, as indicated by the sputa; in Case III the discharge consisted of laudable pus almost entirely, and this is the only case which recovered.

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* On Diseases of the Liver. By George Budd, M. D.

The diagnosis is always difficult, and in most cases is only made when the abscess is discharging its contents in some direction. The liver is not a sensitive organ of itself, and it is only when the inflammation has extended to the peritoneal covering that pain becomes a prominent symptom. In Case II the autopsy revealed almost total destruction of the liver, and pain was never a prominent symptom. The diagnosis was not positive, and abscess was suspected from the hectic symptoms and enlargement of the liver, and this associated with dysentery. Jaundice is not sufficiently constant to be relied upon as a symptom of diagnostic value, only being present to a slight degree in one of our cases. Pain in the right shoulder is a valuable diagnostic symptom, and was present in Cases I and III.

When there is a strong suspicion that pus has formed in the liver, Dieulafoy's aspirator may be used both as a diagnostic aid and as a curative measure. This appears to be the most favorable of all methods of ridding the gland of pus, while at the same time the sac of the abscess may be injected with medicated fluids without the entrance of air.

The fact that the diagnosis is difficult, and can not with certainty be made during the formative stage of the affection, has a bearing upon its treatment. After suppuration has occurred it is of course useless to administer mercury with the view of preventing further effusion of lymph or favoring its absorption, while the known power of this drug to impoverish the blood may still further incapacitate the system for repairing the damage already done. The following extract from the experienced pen of Dr. McLean, contained in Reynolds's System of Medicine, may not be without interest in this connection:

> "The invalids from every foreign station garrisoned by the British army pass through the Royal Victoria Hospital, Netley. Nothing is more common than to see men who have made excellent recoveries after the evacuation of hepatic abscesses through lung or bowel: nothing more rare than to see men with the cicatrix of such an abscess in the right hypochondrium, more particularly in an intercostal space. Where there is an external cicatrix it is almost invariably situated just below the ensiform cartilage, verifying the dictum of Morehead as to the greater frequency of recoveries when abscesses pointing outwardly occur in the thin part of the right or well toward the left lobe."

DANVILLE, KY.

A CASE OF WOUND OF THE KNEE-JOINT, WITH ESCAPE OF SYNOVIA.*

BY R. G. JENNINGS, M. D.

N. J. H., carpenter, aged twenty-six years, rather delicate, with strumous diathesis, cut himself in the right knee with an adz. The wound was an inch and a half in length, extending from the inner border of the patella, across the tissues of the knee, over the joint. The physician who saw the case first dressed the cut by two interrupted sutures and adhesive strips, and gave it as his opinion that the wound was too slight to prevent the patient from resuming work at once. Acting upon this suggestion, the patient in two hours experienced intense pain, which continued without intermission for forty-eight hours, when I was called. At this time there was extensive inflammation of all the tissues of the knee-joint; the surface intensely red, swollen, and painful, with an ichorous discharge from the wound; could neither move the leg nor bear even the weight of the bedclothes. The general excitement was extreme, with high fever, thirst, etc. After removing the dressings and cleansing the parts I applied carbolic-acid cerate to the wound, and directed a lotion of muriate of ammonia, tincture of arnica, and opium to be kept constantly to the knee, and the patient to have a brisk purgative and a full dose of opium.

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* Read before the College of Physicians and Surgeons of Little Rock, Ark.

The next morning found the patient easier, having slept some, and in all respects better. The following day, there being an increase of the local suffering, I applied warm flaxseed and hop fomentations to the knee, and gave a febrifuge mixture. At my next visit I discovered that a considerable quantity of synovia had escaped from the wound, and this continued for a number of days, the fluid varying in color and consistency, and also in amount. The edges of the wound presently began to granulate, and gradually cicatrized, except at one small point, which continued to discharge small quantities of synovia. The swelling about the knee now increased, and was accompanied by considerable œdema of the leg and foot. Subsequently a large abscess formed in the popliteal space. This was freely opened, and after discharging pus mixed with synovia for some time was at the end of six weeks finally closed by the aid of methodical pressure. The treatment during this time had been first antiphlogistic, then supportive, and finally tonic and stimulant.

After the abscess and original opening into the knee had closed, and the more acute local symptoms had subsided, the joint was daily painted with tincture of iodine. Gentle frictions were made over the entire limb, and passive motion perseveringly instituted, with the effect of soon restoring the parts to their normal condition, save perhaps a slight enlargement immediately about the knee, with an occasional sensation of grating when the joint is moved and some want of power in the limb.

Little Rock, Ark.

THE MEDICAL STUDY OF INEBRIETY.

BY T. D. CROTHERS, M. D.

The report of the select committee of the British House of Commons on the care and management of habitual drunkards contains the most valuable literature on inebriety yet published. Over thirty different physicians, including superintendents of insane asylums and specialists of the highest authority, in both this country and Europe, were examined. The evidence in this report shows that seventy-nine per cent of the criminals passing through the jails are so from drunkenness; that in England twenty per cent of insane patients, and in the United States fourteen per cent, arise from the same cause; also about one half the idiots are the offspring, directly or indirectly, of intemperate parents. Statistics of the cause of crime among the prisoners of the Albany, N. Y., penitentiary show that twenty-one thousand out of twenty-four thousand committed were inebriates.

These facts are significant of the necessity of a thorough study of this subject. There are ten asylums, both public and private, in this country and Canada devoted to the cure of inebriates. The number treated is probably not less than two thousand per year, with a percentage of recoveries varying from thirty-three to forty-eight per cent, based always on the condition of the patient two years after treatment, and sometimes much longer. This recovery is ascertained to be as complete and permanent as in any other form of mental or physical disease. The time required varies from twelve to sixteen weeks; in English institutions longer. It is asserted that three per cent of inebriates recover naturally, and that societies and benevolent institutions restore or help to recovery about seven per cent.

Compared with the study of insanity — which for eighty years has occupied the attention of specialists, aided with all the light and appliances of modern science, resulting in the cure of from thirty to forty per cent of chronic cases, and from seventy to eighty per cent of the acute cases—the treatment of inebriety promises to be strikingly successful. Its recent study, and the chronic condition of the patients upon which this study is based, together with the want of authority to restrain patients, amply confirm its abundant promises for the future.

That inebriety is a disease is established, but may be reaffirmed in the following summary: 1. Inebriety may begin as a vice or habit, but it soon merges into a physical disorder, involving the digestive apparatus and blood, and through these the nervous system and will-power, pursuing a certain definite course, and ending fatally. 2. Inebriety may be developed suddenly from certain obscure lesions of the brain or arise from the direct line of inheritance, and in all cases is attended with the same general physical symptoms and disorders. 3. It presents the same general pathological and physiological characteristics, irrespective of country, race, or condition, alcohol and its compounds being both the general and particular cause.

The discussion of inebriety for over half a century, founded on the error that it was a vice which could be checked by will-power alone, has been barren of results comparatively; and the poor inebriate is still the victim and object of persecution not unlike the insane before the advent of Pinel. The medical study of this subject has been limited to the last fifteen years. Although it was affirmed sixty years ago that inebriety was a disease requiring treatment in hospital, nothing was done except casually in a few lunatic asylums. In 1857 the first and yet the largest asylum for inebriates was opened at Binghamton, N. Y., and from that time this subject has received special attention.

The study of inebriety suggests several divisions and classes of the disease. *Dypsomania* is applied to intermittent drinkers, and signifies a mania for drink, coming on in defiance of reason, conscience, public opinion, or any ordinary restraint. *Methomania*, or a persistent desire to drink at all times and places. *Alcoholism* is a general term representing any abnormal condition induced by alcohol in any form.

Dr. Joseph Parrish makes the following classification: 1. Confirmed inebriates: those hopelessly given over to drink without any prospect of making a favorable change. Often this intemperance seems to be a mere incident in connection with a life of general depravity. 2. Emotional inebriates: those who have no bad intentions or acute convictions of duty, responsibility, or established principles of right; who are moved by the promptings of impulse simply. 3. Accidental inebriates: men of good principles and character, who know and acknowledge their infirmity, and endeavor to overcome it.

Dr. James Crichton Brown, superintendent of the asylum at Wakefield, Eng., makes the following suggestive analysis of inebriety before the parliamentary committee:*

"Out of six or seven hundred cases of insanity, due directly to inebriety, under my observation, I have recognized four forms of mental disease especially connected with drunkenness.

"1. *Mania a potu*, or alcoholic mania. This is distinct from delirium tremens; the latter being over, as a rule, in eight days at the outside, and this form of excitement lasting for six weeks or two months. It is a genuine attack of mania, which is always characterized by the same sort of illusions as are present in delirium tremens; namely, morbid beliefs of a suspicious character, alarm, and ideas of persecution, with restlessness and agitation. It is as it were a prolongation of delirium tremens. I find this variety of insanity is due to repeated attacks of delirium tremens, and is often followed by a good deal of depression and mental stupidity, indicating failure of brain-power subsequent to the excitement.

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*Committee on the Cure and Management of Drunkards. Blue Book, 1872.

"2. I have recognized as due to drunkenness a monomania of suspicion; a form of chronic mental derangement in which, without any excitement or muscular trembling, as in other cases, we have delusions of suspicion. The sufferer may talk rationally upon general subjects, but at the same time he has a furtive manner, and believes that he is persecuted, and that electricity plays upon him to the detriment of his health. These delusions of suspicion may be latent, but at times may become so urgent as to goad their victim to attempt either suicide or homicide.

"3. *Alcoholic dementia*, characterized by failure of memory and of the power of judgment, with symptoms of partial paralysis, ending fatally.

"4. *Dypsomania*, an irresistible craving for alcoholic stimulants, occurring periodically, paroxysmally, and with a constant liability to periodical exacerbations when the cravings become altogether uncontrollable. This is always associated with certain impairment of the intellect, and of the affections and moral power, and sometimes with delusions."

Dr. Brown also made a distinction between the disease which drives a man to drinking and the drinking which produces it; the one he called a vice, the other a disease. The indulgence of the propensity in one was voluntary, and in the other not.

Dr. Christison defines an inebriate to be, *first*, not an ordinary or habitual drunkard, but one who ceases to be controlled by every moral and religious consideration; *second*, frequently overwhelming the mind in intoxication; *third*, so far gone as to occasion danger to his family or affairs. Dr. Forbes Winslow defines inebriety under two heads, normal and abnormal drunkenness; one he terms a vice, the other a disease.

In the diagnosis of inebriety a peculiar alcoholic diathesis has been described by various writers. Dr. B. N. Comings says:*

> "The alcoholic diathesis is as well marked and as readily recognized by the observing physiologist as the tubercular. The sensual animal organization of the child of drinking parents as clearly foreshadows its liabilities as the rosy tint of the cheeks, the long eyelashes, the slender neck, and narrow chest indicate tubercular tendency. This alcoholic diathesis is early shown by indecision of character, weak will-power, nervous irritability, tendency to convulsions or epilepsy from slight causes. The appetite, which is often morbid, capricious, or extravagant, is stronger than the reasoning powers or judgment. With such children self-indulgence is the ruling passion which molds and controls character. It requires no prophetic vision to foresee that children thus organized will become easy victims to intemperance if they are brought within its seductive influences."

Other writers have mentioned an alcoholic diathesis noticed in the precocious talent, irregularity of temper, and also neurosal disorders, such as neuralgia, hysteria, hypochondria, and eccentricity; and in those families where inherited physical disorders are present, such as clubfoot, hernia, strabismus, cancer, or consumption. These peculiarities are inherited either directly or indirectly, and comprise so many additional hints of the magnitude and complexity of this disease.

We shall discuss the causes of inebriety under the following heads: Primary, Hereditary, Predisposing or Exciting.

The primary causes are all those influences which when combined form a taste for alcohol or develop the vice of drinking, ending in disease. Of these we may enumerate love of excitement, social habits, vicious company, medicinal use of alcohol, etc. Each one of these, or all of them combined, frequently develops violent cases of inebriety. Hereditary causes are the most frequent. For over half a century these influences have been recognized by medical men, yet never studied until lately. A writer in the British Physiological Journal observes, "The most startling problem connected with inebriety is that it not only affects the health, morals, and intelligence of the offspring, but they inherit a fatal tendency and craving for the same liquors which acted as a poison on their parents at the commencement of their being." The laws of inheritance are yet obscure. In some families we find a predisposition to specific physical disorders breaking out in various forms and peculiarities, in others a peculiar exemption from disease; in one case the system seems freighted with the germs of decay and weakness, in the other the tendency is toward recovery under all conditions of exposure. Not unfrequently these disorganizing tendencies overleap one generation or more, and appear in the third or fourth generation, showing that these defective cell-functions may remain dormant, awaiting an exciting cause to kindle them into activity. Dr. Howe, of Massachusetts, reports that out of three hundred idiots one hundred and forty-five were from drunken parents. These facts are confirmed by statistics from inebriate asylums. The inebriate transmits not only a debilitated physical and moral stamina, but a defective cell-function, which, like the seeds of syphilis or tuberculosis, reproduce its disorders with almost fatal exactness. Inebriety frequently ends in insanity, and insanity may cause inebriety. From insane parents we may have chronic inebriety, and *vice versa.* What this relation or kinship is we can not tell at present; we simply know the fact; but the children of inebriates derive from the parent a physical and often a mental taint, which, if we understood it, would perhaps throw additional light on many strange phases of this disease.

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*See Report on Claims of Inebriates to Public Sympathy, before the State Medical Society of Connecticut, 1873.

How far inherited inebriety is connected with insanity, either as a cause or result, is yet a fruitful subject of discussion. Dr. Dodge, formerly superintendent of the New York State Inebriate Asylum, writes, "Inebriety and insanity are twin-brothers in all their manifestations and results." Dr.

Nugent, government inspector of lunatics of Ireland, believes there is a very close relation between them, and that the decrease of the population of Ireland of two millions during twenty-five years, with no decrease in the amount of insanity, is owing to the greater indulgence in drink; also that if there is a disposition to insanity, drink is sure to develop it. Dr. Mitchel, commissioner for lunacy for Scotland, says that from an experience of thirty years among the better classes of English society, a large percentage of mental and brain disturbances arises from inebriety. Dr. Joseph Parrish thinks that insanity and inebriety are two very different diseases. Inebriates have not diseased intellects literally, but merely impotence of will-power, which develops into hallucinations, delirium, or mental irregularities, passing off in a few days or weeks, leaving the intellect clear and competent. Insanity is a deranged intellect and perverted judgment, which does not pass off readily; also in some men there is a predisposition to insanity, and in others to intoxication, from the same causes; just as men exposed to wet or cold and fatigue may either get a rheumatism or a pleurisy. Dr. Anstie * believes that paroxysmal drinking always results from hereditary insanity. Dr. Druit † says, "Many people drink priodically. Instead of having a fit of gout or insanity they have a morbid sensation, which leads them to a bout of drinking. Of the many exciting causes of inebriety we may mention wasting disease, severe nervous shock, sun-stroke, injury of the head, excessive grief, or reverse of fortune as among the most prominent." Dr. Parrish ‡ says, "There may be changes in the cerebral structure from accident or sudden shock, producing functional perversions, from which the same desire for alcohols may originate." Dr. Brown testified before the committee of Parliament, "I have known dypsomania to be produced by injuries of the brain in perfectly sober men;

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* Before the Parliamentary Committee, 1872.

† From same report.

‡ See paper read before the Baltimore Medical Society, 1874.

also I have seen it produced by sun-stroke and other causes. I saw a case of a sober man who became a dypsomaniac by taking a draught of cold water in a hot day, which caused fainting and an entire change of character." Other witnesses mentioned its origin in the commotion which the system undergoes at puberty or climacteric change. During the late war a number of cases were noticed from these causes, also following low forms of typhoid or malarious fever, and injudicious prescriptions containing alcohol. There are good reasons for believing that inebriety originates in many cases from the poisonous compounds of alcohol now in such almost universal use.

In considering the pathology of inebriety it is a pleasure to note that American authorities are far in advance of their transatlantic brethren on this subject. Dr. Joseph Parrish, in a recent lecture,* says, "I believe the diseased condition which leads to intemperance to be one of alimentation chiefly. Our appetites differ widely. In some forms of disease there is eccentric diversity, as in hysteria and chlorosis. Here the articles eaten do not satisfy gustatory sense, but a constitutional demand. Such cases show a disordered alimentation and of the nerve functions which control it. . . This is attributed to some unusual molecular change or metamorphosis in nerve-structure or some variation in the process of digestion."

Dr. Willard Parker says,† "Our appetites simply express the wants of the system; but when abnormal or diseased cravings for alcohol, opium, or hasheesh exist it indicates a diseased nutritive function demanding relief beyond the power of the will."

Dr. George Burr concludes a valuable paper‡ on this subject as follows: "1. Inebriety is a disease of constitutional character, involving the entire organism in its consequences; 2. That the true disease is a morbid craving for alcohol, of which the act of drinking is but the effect; 3. Whatever the true physiological action of alimentation may be, or in whichever system of nerves the sensation which gives rise to hunger and thirst may reside, the symptoms of inebriety indicate that the disease is a disordered condition of this function, and that the ordinary sensations of appetite for food and drink are perverted and uncontrollable." In an article read before the Albany County Medical Society the author refers to this subject as follows: "There are some reasons for believing that the brain is divided into certain districts, which preside over and take cognizance of organic life. The processes of nutrition are so intricate and varied it is not unreasonable to suppose that certain brain districts preside over and co-ordinate its functions, determining the quantity and quality of food needed. When this function becomes deranged unnatural, inordinate manifestations follow, more food than is required is taken, the quantity and quality ignored, perversions and aversions begin, and molecular changes follow beyond the power of analysis to determine. To summarize: 1. Inebriety is a disease of certain parts of the brain and of the nutritive functions under its control; 2. It is provoked by alcohol in variable quantities, depending upon unknown conditions of the body at the time of exposure; 3. A weakened will-power and low tone of physical vigor, with tendency to inebriety not inherited, are manifestations of the disturbance of the co-ordinating power of this function."

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* Before the Baltimore Medical and Chirurgical Society.

† See article in vol. iii of American Association for Drunkards.

‡ See paper in vol. iii of American Association for Cure of Inebriates.

Dr. Parrish remarks,* "There are morbific causes, which lie concealed in the human constitution, which tend to the development of various forms of disease. I think it safe to assume that in the germinal cell this element resides, which is certain to progress with the evolution of its forces and structure, as the cell itself is certain to develop into a human being; and that when the being is completed it will possess all the characteristics which resided primarily in the cell, including its physiological as well as its pathological tendencies; and also that each molecule, as it is dissipated in the process of disintegration and growth, leaves its impression upon its successor; and be that impression physiological or the reverse, it has the power of continuity until such continuity is interrupted and modified by the nutritive forces. Another fact equally important must be borne in mind, namely, that the life of a cell may terminate and give place to a successor of a new character, and thus the condition of the individual constitution assumes a new plane of life."

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* See lecture before Baltimore Medical and Chirurgical Society, April, 1874.

Of the treatment of inebriety Dr. Comings says,* "The only successful treatment of this disease consists in the employment of such physical and moral means as shall enable the inebriate to persist in total abstinence, and so long as he can maintain this position he is said to be cured."

Physically the inebriate has deranged nutritive functions, and from that a general debility of all the organs, with perverted will-power and weakened mental force. The function of repair by which the body is built up and sustained is interfered with. To reach complex disease all efforts must be directed to building up the physical, and through that reach the moral and mental. Restore the inebriate to good health, then you can bring a strong mental co-operation in aid to complete the treatment.

The treatment may further be classified under two forms; reparative and restorative. The former removes all exciting causes and influences which increase the disease, thus lessening its intensity, and enabling the patient to partially recover and resume business again. A change of climate, surroundings, and association, with temporary medical help, will frequently do this; the present treatment of inebriety aims to accomplish this result generally.

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* Refer to "Claims of Inebriates," page 14.

The periodic drinkers are the least hopeful. They are subject to paroxysms not unlike malarious poisoning, and during the frenzy seem bound by no restraint. After the attack they make frequent and desperate efforts to save themselves, but fall as before. For this class the asylum offers the only possibility for recovery or stay of the disease, by building up the system and restraining the outburst until the victims are over the attack. It is asserted that there are over one hundred thousand of this class in this country, who are growing worse every day. Under proper medical treatment at an asylum many of them would be enabled to regain their place in society and business.

By the restorative treatment the patient recovers his health, and is cured in the same sense that a man with pleurisy or pneumonia becomes well again. He may be attacked again by wanton exposure to the causes. To accomplish either of these plans there must be special surroundings and conveniences such as can be found in but few private families.

The general treatment may be summed up as follows: 1. Hospitals and asylums, built for the special purpose of treating inebriates, remove the exciting cause—viz., alcohol—and this is of the first importance. 2. They enable the patient to isolate himself from all excitement, and allow complete rest of the nervous system. 3. They remove all care and responsibility from the patient's mind, except that of recovering his lost health, and make him a party with the physician to bring about this result. This of itself is a powerful factor in the treatment. 4. Hospitals and asylums give the medical man complete control over the habits and surroundings of the patient, and offer facilities for superior hygienic and medical treatment.

Dr. Forbes Winslow testified before the parliamentary committee "that institutions for the treatment of inebriety were the crying wants of the age;" and no one who has given attention to the subject can be found to deny that the present public treatment of the inebriate is a sad reflection on the intelligence of the age. The cruelty to the insane of a century ago is repeated in the poor outcast drunkard of to-day. A large part of the business of our city courts is to administer fines and punishment to this unfortunate class. The appeals of reformers directed exclusively to the mental and moral nature of the inebriate, and wholly omitting even mention of physical and medical treatment, evince an ignorance of the subject which is simply amazing.

The proportion of cures effected in inebriate asylums, as compared to those obtained in the best regulated insane asylums, is most striking; and, in view of the difficulties and prejudices which they have encountered, must be regarded as in the highest degree encouraging. And it is confidently asserted that an active and intelligent co-operation of medical men, both in the study and practical management of inebriety in institutions adapted to its treatment, promises to effect more for the relief of the evil than all other agencies combined.

These observations may be briefly recapitulated as follows: 1. Inebriety is both a physical and mental disease; 2. It is excited or caused by alcohol, either directly or indirectly; 3. Pathologically it is confined to certain brain districts, disturbing their functions, resulting in organic and functional lesions of the body, particularly of the nervous system; 4. The experience of only fifteen years has shown that from thirty to forty per cent of all cases are curable; 5. With these facts and results the medical study of inebriety promises to be one of the most practically useful fields of science that can enlist our attention.

ALBANY, N. Y.

Reviews.

Latent Gonorrhea in the Female. By EMIL NOEGGERATH, M. D., New York.

Dr. Noeggerath, who occupies a prominent position among American gynecologists, has recently published a work with the above title, in which he endeavors to prove that the wife of every husband who at any time in his life previous to marriage may have had a gonorrhea will, with very few exceptions, suffer from this disease in a latent form, and which sooner or later will manifest its existence by disease of the uterus and its appendages. To prove this assertion the author cites fifty cases which, in addition to catarrh of certain portions of the sexual mucous membranes, showed symptoms of either acute perimetritis, recurrent perimetritis, chronic perimetritis, or ovaritis. These diseases exert a most unfavorable influence upon their victims; for among eighty-one women only thirty-one became pregnant, and but twenty-three of these reached the ninth month, while three miscarried and five aborted. These eighty-one females had altogether but thirty-nine children; forty-nine were entirely sterile; and as eleven women did not conceive again in from three to eighteen years after the first pregnancy, sixty were practically sterile. The causes of this marked infecundity is explained by the author by the speedy death of the spermatozoa in consequence of the abnormal secretions of the genital mucous membranes.

Dr. Noeggerath deduces the following conclusions after close study of the cases under his observation:

1. Gonorrhea in the male, as well as the female, always leaves traces behind it, even after apparent cure.

2. There is a latent gonorrhea in the male as well as the female.

3. Latent gonorrhea in the male, as well as the female, may give rise to either acute or latent symptoms in any one previously free from taint.

4. Latent gonorrhea in the female manifests itself in course of time by acute, chronic, or recurrent perimetritis, or ovaritis, and in the form of catarrhal inflammation.

5. Wives of men who at any previous time may have been thus affected are, as a general rule, sterile.

6. Those who became pregnant aborted or gave birth to only one child.

7. Fungi are generated in the secretions of latent gonorrhea which are similar to those found in the discharges of acute gonorrhea in the male subject.

It is manifest to our minds that all of the above conclusions can not be correct; some of them are indisputable. The author insists on a course of treatment which, to say the least, will be found very difficult to enforce.

It would perhaps not be proper to close this notice without adding that the views of Dr. Noeggerath have met with most decided opposition from European authorities, who have not hesitated to express their unqualified disapproval of his doctrines. It would, we think, be well if such of our readers as are interested in the subject would give the little book of Dr. N. a careful perusal, as it must be allowed that many of the author's arguments are at the same time novel and original.

R. S. B.

Clinic of the Month.

Oleate of Mercury in the Treatment of Ringworm.—Dr. Kane considers (London Lancet) the oleate of mercury as having the following advantages over other remedies in the treatment of ringworm: 1. It is a *certain remedy*, if carefully applied. 2. It *produces no staining* or injury of the skin. This is of great importance where the disease appears in the face. 3. It is *painless* in its application, which is not true of the strong parasiticides. 4. It *readily penetrates* the sebaceous glands, hair-follicles, and even into hairs themselves. Thus it is more likely to destroy the fungus than spirituous or aqueous solutions of mercury. In very sensitive skins the irritation sometimes produced by it may be avoided by reducing the strength of the solution and applying it with a camel's-hair brush. The ordinary strength of the oleate is ten per cent.

Unconscious Scratching.—Dr. Tilbury Fox says *(ibid.)* on this subject: "I am convinced that sufficient attention is not paid to the evil effects of scratching upon skin-diseases which are accompanied by pruritus, and especially by such as may be termed unconscious scratching; *i. e.*, that which is practiced during the night. To the case of old people suffering from pruriginous affections these remarks particularly apply. I was recently consulted by a gentleman in his fifty-eighth year, who had been greatly distressed and worried by an attack of cutaneous pruritus, for which he had failed to get relief, and which he aggravated greatly by savagely excoriating the skin with the nails, thereby inducing a crop of what is known as pruriginous papules (inflamed follicles and papillæ in a state of excoriation). The cause of his malady was overwork and want of fresh air, no doubt. This, however, is not the point I want to notice, but the effect of scratching during sleep practiced perfectly unconsciously upon himself. He told me that his mornings were miserable on account of the burning and soreness he felt in his skin. He imagined that he had exacerbations of his disease in the mornings; but I observed that each morning the skin appeared to be more than usually excoriated, and on requesting his wife to watch his doings at night it appeared that he was in the habit of almost continuously scratching himself in various parts of the body when in sound sleep. He had no idea that he habitually so scratched his skin, but attributed the ill effects of the scratching to an aggravation, natural as it were, of the disease. The disease in his case was speedily cured, though it had lasted some time, by anointing the body with simple oil, and tying the hands in gloves, so that the nails could inflict no injury upon the skin when he was not watched in the night. The case illustrates the importance of attending to 'little matters' in the treatment of skin-diseases, and especially in regard to scratching."

Atropia in Phthisical Sweating.—Dr. Hassall, of the Hospital for Consumption, Ventnor, who has noted the effect of atropia in sixteen cases of phthisis, sums up his experience *(ib d.)* as follows:

"The sulphate of atropia is best prescribed in pill, with extract of gentian. Watery solutions are not to be depended upon, for they soon spoil by keeping. The first dose should in no instance be larger than one eightieth of a grain, and guided by the results the dose may, if necessary, be increased to one sixtieth or even to one fiftieth of a grain; but if this latter quantity be exceeded, well-marked symptoms of poisoning will almost certainly ensue. In each of the sixteen cases in which the remedy was tried the first dose produced a distinct effect on the perspiration, either wholly arresting it or materially diminishing it. In only one fourth of the cases, however, was this effect direct and permanent; that is to say, only four patients, after using the pills for a varying number of nights, were able to omit the remedy without the sweating returning. But in these four the effect was lasting, for when seen two months after the cessation each patient reported that he was still free from the slightest dampness. Of the remaining twelve cases four found the benefit direct but temporary; that is to say, they obtained complete relief on those nights on which they took the atropia, but the perspirations returned if the pill was missed. In seven cases, although the eightieth of a grain at first diminished the sweatings, the dose had to be increased to maintain the effect. At last, however, the increasing habituation to the drug which characterized the sweats did not apply to the toxic symptoms, for these became so marked that the remedy had to be abandoned in all seven cases without its having succeeded in putting a stop to the sweats in a single instance. Only one case remains, and here there appears to have been an unusual sensibility to the action of the drug. The eightieth of a grain distinctly lessened the profuse sweating each time it was tried, but after three or four attempts it had to be discontinued on account of the severe symptoms of poisoning to which it gave rise. It will thus be seen that the remedy controlled the perspiration more or less in the whole of the sixteen cases; that the effect was direct but permanent in four, direct but temporary in four, beneficial and transitory in seven, and that it was inadmissible only in one instance. These results will be all the more striking when it is added that in many of the cases the sweatings had extended over a period of several weeks, and had resisted all the ordinary methods of treatment.

"The toxic symptoms most frequently complained of were intense heat and dryness of the throat during the night, and indisposition for bodily or mental effort on the following morning. Vomiting sometimes occurred, but diarrhea was not observed. In one case there was retention of urine for several hours. The pupil was sluggish in action, but distinct dilatation was not common except in those cases where one fiftieth of a grain was administered. The patients often complained of dizziness and inability to read any print but that of large type. It is well known that all efforts to check the night-sweats of phthisis too frequently fail; and although it is not urged that the sulphate of atropia is less uncertain than other remedies, it is believed that it will not be found inferior to them in obstinate cases, in some of which it was of much service after all other remedies had failed. The drug would probably prove of extreme value in combating the perspiration in those diseases (such as acute rheumatism) in which the sweating extends over a comparatively short period, and is not so inveterate as that in phthisis."

HYPODERMIC MERCURY IN THE TREATMENT OF SYPHILIS.—The following is the formula used by Mr. Cullingworth:

℞. Hydrarg. bycianidi, ... gr. xxij;
Glycerini puri, ... ʒ iv;
Aquæ ad., ... ℥ iv.

The medium dose is ten drops. The injections should be made on the outer aspect of the upper part of the arm, or between the spine and lower angle of the shoulder-blade. *(Ibid.)*

BORACIC ACID.—Dr. Chiene has found that this substance is a most excellent antiseptic and deodorizer. He has used for eighteen months an ointment, consisting of one part of finely-powdered boracic acid to two parts of the unguentum simplex of the pharmacopœia. He has also used the boracic powder mixed, in the same proportions as in the ointment, with fuller's earth, china-clay or kaolin, and starch. In superficial abrasions and excoriations, in eczematous and prurigous eruptions, these powders were most efficacious. He thought his ointment preferable to Mr. Lister's, in that it contained more boracic acid. The important requisite was to get the acid very finely powdered. A chemist has recently manufactured boracic pessaries and suppositories, which Dr. Chiene believes would be most useful as deodorizers in fetid discharges from the vagina and rectum. A still better application is presented by an ointment composed like that above described, except that instead of one part of boracic acid it contains half the quantity of salicylic acid, the antiseptic virtues of which have been quite recently discovered by Prof. Kolbe, of Leipsig. Salicylic acid, while possessing very remarkable antiseptic power, is even less irritating than boracic acid. (Edinburgh Medical Journal.)

MUCOUS POLYPUS CURED BY ACETIC ACID.—Dr. Méplain, of Moulins, gives the history of a man, thirty years of age, who had been afflicted for a month with mucous polypus of the velum palati. The tumor was growing rapidly, and impeded deglutition and speech, and gave rise to considerable hemorrhage. Applications of chromic and carbolic acids, removals with scissors, etc., afforded no relief, the tumor being constantly reproduced. A drop of acetic acid was injected into the polypus, and it immediately began to shrink; a second injection completed the cure, and five months later there were no symptoms of a return of the disease. (New York Medical Journal.)

TREATMENT OF IRITIS.—Mr. C. Hegge contributes to Guy's Hospital Reports a valuable paper on iritis, from which we extract the following:

"As long as the pupil can be kept well dilated there is little fear of any extensive adhesions taking place, or of its area becoming blocked by inflammatory products. Sulphate of atropia is the agent most commonly used to dilate the pupil, in solutions of varying strength, or in the form of atropia gelatine, which consists of thin sheets of gelatine imbued with sulphate of atropia and marked into squares. Belladonna may also be used for the same purpose, but is less certain in its action than atropia. In every case of iritis the surgeon should place a few drops of a solution of sulphate of atropia, two or four grains to the ounce of water, on the conjunctiva of the lower lid at the time of his visit, and should, if possible, see the patient again in the course of twenty minutes or half an hour. If the iritis be in an incipient form, some dilatation of the pupil will have taken place; but not if the inflammation has lasted for any length of time. In any case a solution of one grain of sulphate of atropia to an ounce of water should be prescribed for the patient to use himself from three to six or eight times a day; or a weaker solution, one eighth or one fourth of a grain to the ounce of water, may be ordered to be used every hour or half-hour, or even oftener, throughout the day. Among the working classes, who are engaged all day, and have not much time to attend to their eyes, it is well to order the atropine to be used in the evening only, three to four or six times in the hour or two before going to bed. In every case the condition of the pupil must be carefully noted at each visit, and more of the strong solution applied whether dilatation has taken place or not. Belladonna is best employed as a lotion, containing from six to ten grains of the extract to an ounce of water, with which the eye should be frequently bathed, and as much as possible allowed to get between the lids. It may be used either hot or cold, whichever may be most grateful to the patient. In cases where the iritis is accompanied by suppuration in the iris or cornea the eye must be kept bound up with lint soaked and constantly kept wet with warm belladonna lotion. In those cases which are accompanied by severe pain this application will be found most soothing. A strong solution of atropine must also be used three or four times a day.

"A peculiar form of erysipelatous inflammation affecting the eyelids (the lower one more especially), side of nose, and cheek, known as atropism, and caused by constant irritation of the tears and atropine solution, is not unfrequently met with when the treatment has been long continued. Some persons appear particularly prone to this form of inflammation, a very few applications being enough to set it up. It is frequently very obstinate, and prevents entirely the use of atropine. It is best prevented by keeping the parts with which the tears and solution come in contact well greased with some simple ointment. Atropine gelatine should be used as a substitute for the solution, one of the small squares, or rather oblongs, into which the sheets are divided being placed on the conjunctiva of the lower lid as often as may appear necessary. Lately a solution of one fourth of a grain of daturine to one ounce of water has been used in the eye-wards at Guy's, and found to act satisfactorily, causing little irritation in cases in which atropine was not tolerated.

"The inflammation must be kept down by antiphlogistic treatment, excepting in cases of iritis depending on debility. Leeches, from two to six, applied to the temple corresponding to the affected eye considerably diminish the intensity of the inflammation, and often act like magic in relieving the most severe pain. They may be applied every third or fourth night if necessary; the artificial leech is also most useful. Blisters to the temples or behind the ears are beneficial, and in some cases a succession of them may be kept up if required. Of drugs mercury is the most useful in checking the formation of inflammatory products. There is no better mode of administration than in the form of the old-fashioned and much-abused mercury and opium. A pill containing two to three grains of pil. hydrar. and half a grain of opium should be given every night and morning, or oftener, as long as may appear necessary. The effect must always be carefully watched, and the pills discontinued as soon as any inconvenience in biting hard crust or biscuits is experienced. If there be severe pain, opium must be given in larger doses, especially at night.* Hot fomentations of belladonna or poppy capsules, or a mixture of the two, give great relief in some cases of iritis accompanied by pain; in others the application of ice is found most agreeable. The patient's own sensations must always be consulted on these points, and he should be recommended to use either hot or cold applications, whichever affords him the greatest relief. It is only in severe cases of iritis that the rather energetic measures above described are necessary."

INJECTION OF PULMONARY CAVITIES.—In an exhaustive paper on this subject by Prof. Pepper, of Philadelphia, contained in the American Journal of Medical Sciences for October, he sums up the question in the following propositions: 1. That the idea of opening lung-cavities by an incision through the chest-walls is at least as old as Baglivi, probably much older; but that, owing to the very imperfect character of early clinical records of thoracic diseases, it is difficult to show that such an operation was actually performed before the last century (Barry), or more probably the present one (Hastings and Storks). 2. That the idea of conducting continuous treatment of such cavities by local applications made directly through the chest-walls has been seriously entertained only within the past few years. 3. That the possibility of puncturing the lung in a state of health with delicate needles without injury was demonstrated in a few instances by the advocates of acupuncture, and more recently in the lower animals by Koch and others. 4. That the operations of Storks and Mosler have shown that lung-cavities are very tolerant of external interference, and that they may be cut down and opened, canulæ introduced and retained, and various medicinal agents injected in solution or spray (Mosler). 5. That the independent observations reported in full in this paper have shown that the continuous treatment of lung-cavities by repeated injections by means of delicate canulæ may be conducted without pain, hemorrhage, traumatic irritation, or interference with internal medication and hygienic measures. 6. That the cases which are best adapted for this local treatment are those where a single, superficial, and circumscribed non-tuberculous cavity exists; but that even when there is implication of the rest of the lung, or incipient disease of the opposite lung, some benefit may be expected. 7. That the mode in which such local treatment does good is chiefly by altering the character of morbid action in the walls of the cavity, diminishing the amount of purulent formation, as well as the degree of hectic irritation and the danger of constitutional infection; that a certain amount of rest for the walls of the cavity is secured by the marked relief afforded to the cough; also that it is indicated, by the progress of the cases above reported, that this treatment may favor the cicatrization and contraction of such cavities. 8. That in the cases in which it has been employed, in which over seventy injections have been given, it has shown itself free from all danger and of a *certain degree of positive clinical value*, since during its use uniform improvement to an exceptional degree has taken place in both the general and local conditions of the patients.

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* "Since writing the above I have heard the employment of opium with extract of hyoscyamus (in pills containing half a grain of the former to two grains of the latter, taken repeatedly until almost poisonous effects have been produced) most highly spoken of in cases of painful recurrent iritis."

DIPHTHERIA. — Mr. T. Prangley read a paper before the British Medical Association, founded on the observation of fifty-six cases of diphtheria, which came under his care at Aylsham during an epidemic which prevailed in the summer and autumn of 1868. The cases had been of all degrees of severity. He regarded the amount of engorgements of and deposit on the tonsils as a valuable prognostic sign, and said that one of the worst signs was the extension of the disease to the nares. The propagation of diphtheritic membrane to the larynx was also an ominous symptom. Regarding the treatment, he said that in every case he applied tincture of iodine (forty-eight grains to one drachm) locally to every part of the throat covered with membrane at least once in every twenty-four hours, and also ordered the inhalation of iodine-vapor with steam. The general treatment was supporting and stimulating. Of his fifty-six cases seven died, five of whom were moribund when he first saw them.

Sir John Cormack said it was not safe to found our treatment of diphtheria only upon what we ourselves may have seen and done. A practitioner may have seen in some particular locality, or in some particular epidemics, nothing but recoveries; and if he have applied iodine locally, and given zinc or iron internally, he may be inclined to attribute the successful issue of his cases to the treatment which he pursued. Unless he be as conversant with the experience of others as with his own, he may long slumber under his delusion; but the time may come to him, as it has come to others, when in spite of his cherished remedies, local and general, he will see a large proportion of the attacked perish from croup, or be saved only by tracheotomy performed in good time. The use of local applications to the throat of a diphtheritic patient is fraught with infinite danger to the applier. Many medical practitioners and medical students have received the diphtheritic poison in the spit of their patients, involuntarily ejected on the application being made. Promising young physicians and some elder men, celebrities in medicine, have died of diphtheria so contracted. If we do apply any thing to the throat, we can only do it with safety to ourselves if we wear a mask; but all potent applications to the throat have ceased to be in favor with those who have seen most of diphtheria. They say that iodine, nitrate of silver, and the like generally produce increased exudation; while in other cases, where the exudative tendency is moderate, they seem to do little or no harm. The only local application now used by the author is the glycerole of borax of the British Pharmacopœia. It promotes the separation of the pellicle, and does not irritate the mucous membrane. The appearance of albumen in the urine is not of itself of evil prognosis. In many cases in which the urine has been intensely albuminous we have complete recovery. Diphtheria is essentially characterized by intermittence in the gravity of the symptoms; a lull, often mistaken for the dawn of convalescence, is not at all unusual. After such a lull, as a prelude to an exacerbation of symptoms, we can usually by the thermometer detect a rise in temperature, and a concurrent appearance or reappearance of albumen in the urine. Touching the differential diagnosis of simple membranous sore-throat from the specific disease diphtheria, the author thought that it could neither be determined by the presence nor by the absence of fever, nor by any other than one test—a test simple and sure. Apply a small blister to the arm or elsewhere. If the case be diphtheria, the said surface will become covered with a diphtheritic pellicle; if it be not diphtheria, no false membrane will appear.

Mr. Prangley, in reply, said that as regards the pulse, temperature, and urine, he could not get any information from them which was valuable in prognosis. He had in some instances tried for a time treating the cases without any local application, but as they became worse he subsequently resorted to this mode of treatment. He could not agree with Dr. Bradbury that two diseases may co-exist in the body. He thought it better to consider the two forms as one and the same disease, and to impress upon the friends the importance of mild cases. (British Medical Journal.)

ON THE BLOODLESS METHOD.—Prof. Esmarch observes that since he first brought the subject before the Third Surgical Congress, in Berlin, he has had the opportunity of trying his method in two hundred additional cases, and that he now entertains a much higher opinion of its utility than he did then. Not wishing to weary his audience with mere statistical details, he yet feels desirous of pointing out the influence which he believes the method exerts in diminishing the mortality of large operations. Thus of thirteen amputations of the thigh he has only lost one, and the same with respect to eleven amputations of the leg, while four of the upper arm all recovered; so that in twenty-eight of the greater amputations there occurred only two deaths. An amputation of the shoulder succeeded, but one of the hip-joint, which from the first was almost hopeless, failed,; and of eight excisions of the large joints (three of the hip, three of the knee, and two of the elbow) only one terminated fatally. These are favorable results that can not readily be surpassed. His clinical wards are contiguous to the medical wards, and both have long been overcrowded, and erysipelas, diphtheria, and pyæmia have been often met with. He is under the conviction that the more favorable results of the present year are due to the adoption of the bloodless method. This presents the following advantages:

1. The small loss of blood which takes place. Every one is aware how convalescence is retarded and endangered when the loss of blood has been large. The production of acute anæmia here is the great danger. The coagulability of the blood augments in many cases with the impoverishment of the red globules, and with this increases the danger of thrombosis and pyæmia.

2. Sponges need not be brought in contact with the unbleeding surface. Although he has always been very careful not to use sponges that have not been thoroughly cleansed and disinfected, yet Dr. Esmarch has still suspected that they have still had something to do with transporting contagious material, and especially the poison of erysipelas.

3. The large arteries and veins are not subjected (as they are when the tourniquet or digital compression is employed)

to violent local pressure. They are equally compressed on every side by the entire mass of the soft parts being inclosed in the ligature.

Disadvantages of the method Prof. Esmarch has not met with himself, and especially he has not seen paralysis as a consequence of the ligature; and he believes that when this has taken place in the hands of others it has arisen from too powerful an application of the caoutchouc tubing. Indeed he has had to prevent his own assistants committing this error. All kinds of caoutchouc are not suitable, and he prefers the brown, non-vulcanized, and tubes or rollers made of the red caoutchouc; and in general no great force is required to completely prevent the afflux of arterial blood. The first turn should especially not be too forcible, as each succeeding one considerably increases its effect. Any one may be easily convinced of this by passing a fine caoutchouc bandage several times around the same part of a finger. He has never met with gangrene of the flaps reported by some surgeons, and thinks that this has been dependent upon other causes.

Additional advantages of the method are referred to; thus, as a consequence of the local ischæmia and compression of the nerves, a local anæsthesia is induced, rendering operations but slightly painful. In the out-patient establishment at Kiel it is almost always resorted to for small amputations, incisions, removal of nails, etc. Generally the anæsthesia does not occur until some minutes after the application; but if Richardson's spray-douche be used it is quickly induced, as the freezing is infinitely more quickly brought about when the arteries no longer bring additional caloric with the blood.

The method allows of a thorough examination being made of diseased parts, especially in the bones and joints. On many occasions Prof. Esmarch has examined these as deliberately as in the dissecting-room before he decided whether he would perform excision or amputation. He has thus frequently been able to assure himself of the various alterations on the living body, and has submitted portions to the microscope before he would decide on operating. The same assistance is derived in the removal of small foreign bodies—such as needles, glass, splinters, etc.—which have become imbedded in the hands or feet; and every one knows how a constant stream of blood aggravates the difficulties in these cases, leading in some cases to the abandonment of the attempts. Now, if the situation of the body be but known, it is removed with the greatest ease, and the slight wound necessary for this usually heals by the first intention. Of the great facility with which the ends of wounded arteries may now be found Leisrink and Stokes have published remarkable examples.

Another advantage greatly to be prized is the fact that many of the great operations can be performed without any skilled assistance whatever; a fact of importance not only in military surgery, and for surgeons when alone on board ship, but still more so for practitioners in the country and in small towns. Many are the thankful communications on this head which the professor has received from his pupils scattered about in country parts. One of them, not having the apparatus with him, employed a linen binder and his elastic braces during the easy extraction of a splinter of glass which was imbedded in the arm. It is very desirable that officers and soldiers going into battle should have elastic braces capable of being used in the arrest of hemorrhage on emergency. Prof. Müller, of Würzburg, suggests that in a woman dying of hemorrhage the ligature might be applied to the four extremities so as to force the blood toward the trunk and head, thus warding off collapse and giving time for transfusion, or enabling us to dispense with this.

By means of the ligature, which may be applied at any part of the extremities, lay persons are in the position of being able to control accidental hemorrhage, no knowledge of the places of the arteries being required, as for the application of the tourniquet. As Prof. Langenbeck has remarked, in most cases an elastic bandage will answer the purpose as well as the caoutchouc tube, while its pressure is gentler and more uniform; but still there are cases in which the tube can not be thus superseded owing to its smaller size. Prof. Esmarch can not agree with those who think that his method is not suitable in operations upon the shoulder and hip-joint, having himself employed it in several of these with complete success. In operations upon the shoulder blood may be prevented passing through the axillary artery by carrying the tube under the axilla, drawing it tight over the shoulder, and keeping it in a state of tension by a strong fist supported by the clavicle; or both ends may be held together by a clamp, like that used for fixing the pedicle in ovariotomy. Bringing the tube across the chest and back to the opposite axilla, as was at first done, is objectionable, on account of the interference with respiration that is produced. In amputations at the upper part of the thigh the tube may be passed firmly once or twice around the limb just under the bend of the thigh, crossing the ends over the inguinal region, and carrying them around the posterior surface of the pelvis, and uniting them over the lower part of the abdomen; or a binder may be firmly rolled up and applied as a pad over the external iliac above Poupart's ligament, and compressed by several turns of a strong caoutchouc bandage. In operations upon the hip-joint itself, however, such a bandage would be in the way, and we must then compress the aorta in the umbilical region. This can be done by means of a pad formed of a linen bandage eight meters long and six centimeters broad. This is wound around the middle of a wooden staff the thickness of a thumb and a foot in length, which enables the pad to be retained in its right position. The pad is applied immediately under the umbilicus, and is compressed powerfully against the spinal column by five or six turns of a caoutchouc bandage six centimeters in breadth. By this means the flow of arterial blood through the aorta can be completely arrested, provided care has been taken beforehand to empty the intestinal canal by means of purgatives and enemata. In some cases it is preferable to employ a pediculated pad, which allows of its being pressed deeper into the abdomen. Prof. Esmarch has had a slit made in the steel pedicle of his pad *(pelote)*, through which the turns of the caoutchouc binder can be easily passed. Several persons have recommended raising the limb for some minutes prior to the operation before applying the compressor, but this is by no means of the same utility as the methodical application of an elastic bandage. The only cases in which the raising the limb is of advantage are those in which the presence of foul secretions renders it unadvisable to force them by the bandage into the cellular tissue and lymphatic system. It is very desirable, in cases in which there are open wounds, ulcers, or fistulæ of the extremities, that these should not only be covered with varnished paper, etc., but that pure caoutchouc bandages only should be employed, because these are much easier cleaned than those in which silk or cotton enter into the composition. (Medical Times and Gazette.)

Notes and Queries.

Death of Dr. Anstie.—The profession every where will receive the announcement of the death of this eminent physician with feelings of profound regret. Dr. Anstie, while ranking among the foremost medical men of the chief city of the world, was still a young man, which renders his loss more grievous to the profession. Besides being editor of the Practitioner, he was on the editorial staff of the London Lancet, from which we derive the following particulars of his life and the circumstances of his melancholy death, which occurred at his house in London on the 12th of September.

Francis Edmund Anstie was born at Devizes on the 11th of December, 1833. He was the second son of a manufacturer in easy circumstances. After being educated at a private school in his native town he was articled to his cousin, Mr Thomas Anstie, in 1850, with whom he remained three years. In 1853 he entered King's College, and gained the Gill prize for general proficiency at the end of his first winter session. He was undecided after four years as to his future line of practice, and in 1857 took the post of resident physician—accoucheur's assistant in the hospital. In the autumn of the same year he took his M. B. degree in the University of London, and was for some time occupied in administering chloroform for Sir William Fergusson. He was appointed physician to the Chelsea Dispensary in 1859, by which time he had decided to devote himself to the practice of medicine.

Dr. Anstie became a teacher of medicine in connection with Westminster Hospital in 1860, lecturing first on forensic medicine and subsequently on materia medica; his course, as the writer in the Lancet remarks, "being devoted rather to the therapeutic action of drugs than to matters of mere detail." In 1863 he married, and thenceforward, continues the same writer, "devoted himself far more closely to the practical business of his calling, displaying a power of study and sustained work that had previously lain in abeyance, and that rapidly brought him into the first rank of his contemporaries." The year following his marriage appeared his work on Stimulants and Narcotics, the result chiefly of his researches and observations at Westminster Hospital. For thirteen years he continued to discharge the duties of assistant physician to the hospital, devoting himself with great assiduity to the out-patient department. About a year ago he succeeded to the post of physician, in which he found full scope for those powers of clinical teaching which had been cultivated to their utmost by his long work among out-patients. In addition to his appointment at the Westminster Hospital he was physician to the Belgrave Hospital for Children, and consulting physician to the Royal South London Ophthalmic Hospital.

For many years Dr. Anstie was a member of the editorial staff of the London Lancet, and in 1868 projected the Practitioner, of which he was long the sole editor. In 1865 he became a Fellow of the College of Physicians, "and was now recognized as a power in that venerable institution, where his voice was raised in support of every proposal which was calculated to increase the dignity or extend the usefulness of the college." His last work, and that on which his reputation will chiefly rest, is his thoroughly scientific treatise on Neuralgia, a second edition of which he was preparing for the press when arrested by the accident which terminated his valuable life. The writer in the Lancet remarks with feeling:

> "It is impossible, in dwelling upon the rare qualities which characterized Dr. Anstie, to separate the personal, which endeared

him to his intimate friends, from the intellectual, by which his name became familiar to the profession and the public. He was a physician of the type which is the pride of English physic and the crown of our schools of medicine; or rather it should be said he was a typical physician of this class. His intellectual culture was not inferior to his strictly medical culture, and this was of the highest. The one, in fact, formed as it were the fitting setting for the other. Complete in the technical knowledge of his profession, he brought to its application in actual life that happy combination of scientific and practical acumen, conjoined with a peculiar charm of manner, which make the physician in the truest and best sense of the word. Prompted by a thorough love of medicine, he labored closely and hard at some of its most complicated problems, and he has left results of enduring value both scientific and practical. His scientific work is characterized by keen insight into the problems with which he dealt, and by a rare appreciation of the light in which his researches should be regarded, as contributing on the one hand to existing knowledge of the subjects to which they referred, and on the other to the furtherance of investigation. His practical work was distinguished by the skill with which he sought to educe principles of treatment from pathological and physiological data, and rationalized necessary empiricism. Widely read in the literature of his profession, he brought a richly-stored memory to his editorial and literary duties. He was an eager upholder of the dignity of medicine, and an unsparing critic of whatever militated against the good name of the profession within or without its ranks. A clear and incisive style gave power to a pen which, if it was keen, was never unkind, and which has performed an active and influential part in all the great questions which have agitated medicine in its social and political bearings for some years past.

"The substantial fruits of Dr. Anstie's labors were about to be gathered, when, in the earnest pursuit of a duty, he accidently received the infection which killed him. Medicine, although rich in sterling workers, can ill afford to lose such a man, and the manner of his death aggravates the painful sense of his loss. It was too costly a life to have been sacrificed prematurely in so pitiful a way."

The circumstances of his death will form part of the history of the profession. The schools of the Patriotic Fund at Wadsworth had been visited by a somewhat strange succession of illnesses, and at last some of the children were attacked by a rapidly fatal form of peritonitis. Dr. Anstie was called in to the assistance of the medical officer, and he made a careful examination both of the premises and of the patients. He was at the time suffering from over-work and want of rest, and was perhaps hardly in a state to undertake the oftentimes dangerous duty of a medico-sanitary inspection; but after accomplishing it he made, on Sunday, the 6th, a post-mortem examination of one of the children who had died from peritonitis. While thus engaged the middle finger of his right hand was accidentally punctured with a needle. He sucked and washed the wound immediately, and on Tuesday mentioned the occurrence to some of his friends, but expressed a hope that no harm would result from it. On Wednesday he felt ill, and complained of pain in his right arm-pit. During the afternoon he was so chilly that he sat before a fire wearing an overcoat. Dining with a friend in the evening, he spoke of having poisoned his hand, and said that he had much pain in the arm-pit, that he feared he would have an abscess there. On Thursday he was confined to his bed, and Dr. Brudenell Carter found him with a dry tongue, a dry, hot skin, and complaining of distressing headache, and of much pain over the right pectoral region. After a restless night the patient was worse on Friday, and the assistance of Dr. Geo. Johnson was obtained. At three P. M. on Friday he was delirious, his tongue dry, and his temperature 105°. There was an erysipelatous blush about the size of the palm of the hand over the right pectoral muscle, and there was excessive tenderness on pressure in the right axilla and over the front of the chest, on the right side. His condition at half-past nine the same evening remained unchanged. At half-past nine Saturday morning the breathing was very rapid; there was a distinct friction sound over the middle and lower lobe of the right lung, and dullness on percussion over the same space; the erysipelatous redness and tenderness remained the same; the urine was highly albuminous, and contained numerous epithelial casts. About the middle of the day symptoms of a blood-clot at the right side of the heart came on; the features were livid; the breathing rapid and shallow; consciousness was rapidly lost, and death occurred at half-past two P. M.

PECCAVI.—The writer of the review, in the last number of the American Practitioner, of Dr. Barker's admirable book on *The Puerperal Diseases* did not see the *proof* of his article, or else some errors that he committed would have been corrected. On page 2 of Dr. Barker's book there occurs a sentence which is quoted in the review, and which *seems* to teach, as I have said, two errors; but on pages 308 and 309 Dr. Barker describes at length, from Robin, the physiological modifications of the uterine mucous membrane after parturition. Another error was stating that Dr. Barker made no reference to D'Espine's monograph on *Septicæmia.* No such reference does occur in the part of the volume of which I was then writing, but will be found some two or three times in subsequent portions of it. T. P.

DIGITALIS IN MENORRHAGIA.—An able physician and valued friend, Dr. G. W. H. Kemper, of Muncie, Ind., has criticized my failure to refer in some recently-published contributions to the value of digitalis in menorrhagia, and a part of his note is given below. T. P.

"FEBRUARY 1, 1870.—Dr. John L. Sullivan read a paper before the Gynecological Society of Boston, afterward published in their Journal for June of same year, entitled "Digitalis in Uterine Hemorrhage." Dr. S. refers to the laudatory reports of this remedy in uterine hemorrhages first made by Dr. W. H. Dickinson, of St. George's Hospital, London, in the Medical Times and Gazette for December, 1855, and gives a number of cases of metrorrhagia occurring in his own practice which speedily yielded to digitalis. He recommended small doses, frequently repeated—as tea-spoonful doses of the infusion every hour. For four years past I have habitually prescribed digitalis in uncomplicated cases of metrorrhagia similar to the plan above, and I rely very nearly as much upon its curative powers in this disease as I do upon the use of quinine in malarial diseases.''

THE BROMIDE OF CALCIUM.—Drs. Eulenberg and Juttman (Reichert and DuBois's Archive) have examined the physiological action of the bromide of calcium and other lime salts. Bromide of calcium has a similar but much weaker effect than the potash salt. While the latter, if administered hypodermically, in doses of from 1.5 to 2.25 grains, produced paralysis of the sensitive and motor nerves in frogs, and retardation and entire cessation of the heart's action, 3.5 to 7.5 grains of bromide of calcium are required to produce the same effects. After the use of the former the heart ceases to act in the systole, while if the latter be applied it stops in the diastole. In order to produce death in a squirrel 30 to 60 grains of the potash salt and 120 grains of the lime salt were needed. The bromide of calcium has been used successfully in the treatment of epilepsy, neuralgia, angina pectoris, and hysteria in from 45- to 75-grain doses.

THE AMERICAN PRACTITIONER.

DECEMBER, 1874.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

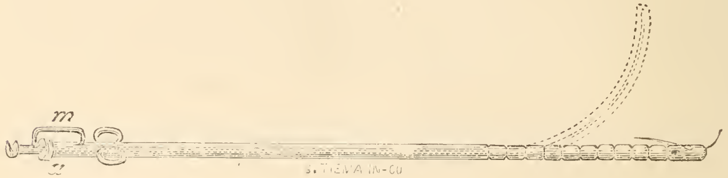
Original Communications.

A MODIFICATION OF SQUIRE'S VERTEBRATED CATHETER.

BY GEORGE COWAN, M. D.

An obstinate case of retention of urine, due to an enlarged prostate, having occurred in my practice some time back, I was afforded an opportunity, running through a good many months, not only of studying the mechanism of catheterization in such conditions, but also the construction of the various instruments in use for their relief. During the progress of the case I made several modifications of the soft catheters, which at one time and another enabled me to reach the bladder after having failed with the instruments in common use. I subsequently availed myself of the mechanical ingenuity of the well-known surgical cutlers, Messrs. Tiemann & Co., of New York, and through their kindness I am now enabled to bring before the profession a catheter which, if not of superior general value, will, I trust, be found under certain circumstances to possess some real merit. The principle of its construction, it will be observed, is similar to that of the excellent instrument of Dr. Squire, while the catheter itself differs from that of Dr. S. chiefly in the two following particulars:

1. In my instrument (of which the following is a correct wood-cut) the chain and rod of the ordinary jointed catheter are dispensed with; the vertebrated portion consisting of two series of rings or tubular sections, the one being internal, the other external. The internal sections are flanged, or trumpet-mouthed, at each extremity, and constricted in the middle. The external sections are oval in their shape, and inclose the former, so that they interlink and dovetail with each other in such a way as to form one continuous hollow or tubular chain of great strength and flexibility.



2. This method of uniting the sections admits of the introduction and use of a straight canula (*a*), inclosing a steel spring (*m*), curved, so that when the latter is freed the jointed or vesical end of the catheter springs into a curve, as represented by the dotted lines in the illustration.

By means of this combination the flexibility of the catheter can be modified almost to any extent at pleasure as it passes through the urethra. In the first place it is, as is shown in the figure above, a straight and perfectly rigid instrument, in which condition it may be passed through the straight portion of the urethra as a probe. To enable it to enter the membranous or curved portion of the urethral canal, the canula is withdrawn as the instrument is propelled onward, thus forming itself into a curve, as the distance traversed requires, until the spring, when finally freed from the canula, forms the curve before mentioned as represented by the dotted lines in the figure.

The spring acting as thus described causes the beak of the catheter in its passage to hug closely the superior surface, which forms the shorter curve of the urethral canal; and, lifting it up out of the way of the middle lobe of the prostate, it turns sharply, of its own self-acting property, upward as it passes into the bladder. Should obstructions be met with which arrest the passage of the instrument thus arranged, by withdrawing the curved steel spring itself from within one or more of the sections, as the surgeon may choose, these sections are finally freed from any limiting or directing control, and they can now turn in any direction, passively adapting themselves to the passage.

At the suggestion of Messrs. Tiemann & Co. the terminal extremity of the instrument has been tunneled for the reception of the filiform guide, a not unimportant addition in a certain class of cases.

Although the curved spring stylet was first employed by the writer, and described by him in the American Journal of Medical Sciences for April, 1874, the credit of confining it in a straight canula is due solely to Messrs. Tiemann & Co.

I indulge the hope that the instrument will be found on trial to possess a real merit of its own, and, if nothing more, will prove to be adapted to at least that limited number of cases of retention due to prostatic hypertrophy, in which the catheters hitherto devised are not all that the surgeon would like to have them.

DANVILLE, KY.

ALCOHOL AND ENERGY.

BY DOUGLAS MORTON, M. D.

The old classification of foods into heat-producing and tissue-building is now known to be incorrect, not only in having its dividing-line in the wrong place, but in making exclusion, which is a very important matter, of all forces except heat. It ignores what at this day is considered as settled beyond question—that nerve-force and muscular force belong as truly to the circle of correlated forces as light, heat, or electricity—and what is believed by many, that in their evolution in the animal economy these forces are as certainly, definitely, and solely under the control of physico-chemical law as are the latter in the laboratory of the chemist.*

That elevation of bodily temperature followed the ingestion of alcohol was accepted, before the question was put fairly to the test, much in the manner that we accept an axiom. The thermometer contradicts this flatly. Alcohol causes no elevation of temperature either in health or in the pyretic state.

It was formerly supposed that alcohol did not undergo oxidation in the body, but satisfactory evidence has been found to the contrary. In the light of the principle that oxidation can not take place without corresponding evolution of force in some form or other, since it is not manifested in increase of temperature, what becomes of the force evolved from the oxidation of alcohol in the human body? To answer this question, and to briefly consider some of its important bearings, is the object of this paper.

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* As this view savors of that downright materialism which flatly denies the existence of soul, although it be digressing widely, I wish to say that both he who holds it and can not believe in soul, and he who believes in soul and must therefore reject it, both appear to me to labor under the grave error of assuming a degree of knowledge entirely beyond the range of human intellect. They equally lose sight of the fact that the *terra firma* of positive knowledge is environed by a vast unknown as boundless as space itself, and that somewhere in its depths—where, it is most reasonable to suppose, lie the keys of many mysteries—there may be found also the link which binds these two things together in one great system of truth, though to us they may seem inconsistent and irreconcilable.

Had not the minds of investigators until a comparatively recent time been so steeped in the belief that by the action of a mysterious vital principle the processes of the living body are rendered entirely distinct from and set beyond what is purely chemical and physical, there had been no obstacle in the way of its satisfactory solution save complexity of conditions. While it is granted that life exercises an influence, probably to be forever unintelligible, of so co-ordinating the forces appertaining to matter in its inorganic form as to produce a resultant entirely different from and above them, it can not be denied that when taken up and studied singly these processes are found to require imperatively no preter-chemical or preter-physical hypothesis for their explanation. The laws controlling the interaction of matter and force in the inorganic world will, we have good reason to think, be found amply sufficient. Certainly for studying what is *material* this is the true mental attitude, and no other. By drawing then upon physics for illustration the question can be easily answered. If a quantity of water at any temperature be subjected to the heating process, its temperature will be found to rise, and the degree of elevation will bear a definite and uniform relation to the amount of fuel burnt to furnish the heat; but if a mass of ice be added to the water and heat applied as before, no elevation will take place so long as a particle of ice remains. The disappearing heat is known to be expended as disintegrating force upon the molecules of water bound together in the form of ice. Here the amount of fuel burnt bears a fixed relation with the amount of ice liquefied. Again, if an engine, in the furnace of which a certain amount of fuel had been burnt, evolving a corresponding amount of heat, be attached to machinery and made to do work, to evolve the same amount of heat a larger amount of fuel must be burnt. In this case the amount of work done bears a definite and unvarying relation to the increment of fuel.

This doctrine of the conservation of energy, very meagerly illustrated above, was first distinctly applied to the phenomena of life by Prof. Le Conte and Dr. Watters, and afterward by Prof. Bain, who applied it particularly to nervous and mental phenomena.

Much later other investigators, prominent among whom were Prof. Binz and the late Dr. Anstie, applied the same doctrine to therapeutics, the studies of the gentlemen named being devoted especially to the action of alcohol and quinine, by which it was shown that an amount of alcohol determined by the conditions peculiar to each case individually undergoes oxidation, and that the force evolved contributes to the general store, so to speak, of functional energy.

I will give the results of some experiments and observations made by myself, which I think very distinctly and satisfactorily prove the truth of Prof. Binz and Dr. Anstie's conclusions.

During four or five years past I have had much to do with chloroform administration, but until about two years ago had never made it a special point to give alcohol before applying the anæsthetic. Up to this time it had not been an unfrequent occurrence for a patient to show a dangerous tendency to death by what was evidently depression of heart-power, and it very often happened that nausea and vomiting, sometimes to a degree really serious, followed; phenomena which certainly have some sort of very close connection with heart asthenia. Since I made it a rule to give alcohol in some form or other I have seen no bad effects, not a single case that I recollect even of vomiting.

My sole criterion as to the amount of alcohol that ought to be given is the estimate I form of the susceptibility of the individual to its influence. I am induced to make this statement by the fact that Mr. Clover, the great authority on chloroforming in London, seems to apprehend danger from its use. He says, in the February number of the British Medical Journal, "I like to give a tea-spoonful of brandy, without water, a few minutes beforehand, but not so much as a table-spoonful." I have generally given whisky, and to adults rarely if ever in less quantity than a table-spoonful, and often as much as two ounces. I usually give it fifteen or twenty minutes beforehand, so that the patient may have ample time to get fairly under its influence. In the article referred to Mr. Clover lays stress on the importance of having the stomach empty when chloroform is to be given, and it appears that it is to secure this condition that he gives alcohol in so small a quantity.

It is obvious, however, that (with no difficulty in the way of its absorption) by giving the alcohol a longer time beforehand a larger amount may be absorbed, and the patient may thus enjoy its beneficial influence in a greater degree, and at the same time be in the truly favorable condition of an empty stomach.

I am fully aware that the practice of giving alcohol before chloroforming is not at all new, and that it is adopted by many surgeons, particularly in this country; but that it is far from being a generally-established rule, as my experience and observation warrants my believing it should be, we have proof in the fact that prominent medical men, both in this country and in Europe, are still trying to find an anæsthetic free from the fault that attaches to chloroform of depressing heart-power. Ether has been tried; mixtures of ether and chloroform; of alcohol, ether, and chloroform; and a multitude of other things, particularly in the hands of Dr. B. W. Richardson, of London; and though anæsthetics have been found seemingly (for none have been so thoroughly tested as chloroform) less open to the objection against this agent, all have fallen far below it in quickness, pleasantness, and efficiency of action.

If therefore the only disadvantage connected with the use of chloroform is obviated by alcohol, its advantages enhanced as they appear certainly to me to be, the good derived from the practice of administering it is incalculable, and these facts should be pressed upon the attention of the profession.

Lately I have been trying this force-generating property of alcohol in cases of parturition in which the action of the uterus was slow and inefficient; and though this test has not been applied in a sufficient number of cases to be adduced as demonstration, the response to my own mind has been favorable, and I have been led to consider alcohol, as used in a class of cases in which ergot has been commonly given, as a much more reliable agent. In a certain sense, which I can explain by reference to the illustrations from physical science adduced above, it occurred to me that its action is specific. The heat-force applied both in the case of the liquefaction of ice and the working of machinery is manifested at the point where resistance is overcome, and nowhere else. So, in the cases of parturition referred to, the action of the alcohol seemed to be expended upon the active uterus without producing its ordinary physiological effects. Were I not supported in this view by abundant analogy, in addition to the fact of its being in thorough accord with the principle of conservation of energy, I would hesitate to offer it. But who has not observed that there are conditions which greatly increase tolerance of alcohol? It is increased by muscular, intellectual, and emotional activity, and on the other hand by causes producing vital depression of any kind. It has long been a matter of common observation that patients under the influence of snake-poison can take an enormous quantity of alcohol without manifesting the ordinary symptoms of intoxication; and the leading symptoms in these cases, according to Erichsen, "consist in depression and prostration of the system, a feeble and intermittent pulse." By this principle of conservation this increased tolerance can be easily explained.

In the first class of cases the energy evolved by the oxidation of alcohol finds an outlet, as it were, in functional activity; and in the second class the ordinary physiological effects do not and can not appear until the depressing influence, whatever it may be, has been fully antagonized.

Of the long array of arguments urged against anæsthesia in labor since its introduction, one based, as it is now very generally admitted, upon fact remains still to be disposed of. Anæsthetics do really impede and weaken uterine action, probably always prolonging labor in a greater or less degree, and sometimes rendering the patient liable to dangerous hemorrhage. That alcohol will counteract this tendency is in thorough keeping with its observed action in other cases. It appears to me indeed to be not merely a legitimate but a necessary inference. Experimental proof of this, however, would require a much larger obstetrical experience than has fallen to me or come under my observation since my attention has been directed particularly to this question. I will simply say that the confidence I feel in the power of alcohol in these cases enables me to give chloroform with far less apprehension of danger than I felt before.

LOUISVILLE.

CANCER AND ITS TREATMENT.*

BY DANIEL LEWIS, M. D.

The dogma of a distinctive "cancer-cell" having now been abandoned by its discoverers, the histologists, the leading pathologists of the day may be said to have adopted the opinions of Virchow, who many years back declared the cells of true cancer to be of the epithelial type. A more recent view of the subject, however, inculcates that a special stroma is the anatomical characteristic of cancer; and Mr. Arnott, who is an able advocate of the doctrine, gives expression to it in the following definition of carcinoma:* "A tumor in which a more or less dense fibroid growth forms a sponge-like or cavernous framework, whose alveoli are filled with loose cells of an epithelial type grouped together disorderly, bathed in a clear fluid, and having no visible intercellular substance."

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*Read before the Medical Society of the County of New York.

In view of such conflicting testimony it has been justly said that the microscopist has thus far failed to furnish any positive knowledge on this subject, yet it seems but fair to allow that enough has been accomplished to warrant the belief that the solution of this most important question may yet come from the labors of the histologist. It may be added in this connection that one of the direct results of microscopical study has been to place epithelioma in the list of cancers, where it properly belongs, and there seems reason to believe that rodent ulcers will also be placed in the same category.

The question of cancer being of local or constitutional origin is, as I need hardly remark, of the first importance as regards its treatment. Until very recently pathologists were well-nigh agreed that cancer was a general or systemic affection, which originated in a morbid condition of the blood; and this opinion seems to be in no wise shaken by the fact that the most careful chemical analysis of the blood of cancerous patients has uniformly failed to detect any thing abnormal in that fluid. The constitutional as against the local origin of cancer may be said to rest mainly on the four following propositions:

1. Cancer is hereditary.

2. It usually recurs after removal both in the same and in distant organs.

3. Cancer is often found in tubercular families.

4. It is attended by a peculiar cachexia.

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* Cancer: its Varieties, their Histology and Diagnosis. Henry Arnott, London.

There can be no doubt as to the hereditary character of many cases of cancer. Medical literature abounds in instances of this character. The records of the Middlesex Hospital show it to be so in one out of every nine cases; the London Cancer Hospital in one out of eight cases. Paget affirms that cancer is inherited in one in every four cases, while Velpeau's* experience furnished proof of hereditary predisposition in one in three cases. Walsh is equally decided in the opinion, but gives no statistics. Warren, as quoted by Lawrence,† gives perhaps the most remarkable history on record of hereditary transmission of cancer. He says, "The grandfather died of cancer of the lip; the son had a cancer of the breast; two of his sisters had cancer of the breast; a daughter of one of the ladies had cancer of the breast, which was removed at an early period (she died some years after of cancer of the uterus); a daughter of the gentleman has a cancer of the breast."

In a recent discussion on the origin of cancer, in the London Pathological Society, Mr. Paget declared that it was "not possible to conceive of the origin of cancer, or, I would add, of any disease of the like kind, except by inheritance." The localists, as they are called, admit the hereditary nature of cancer, but claim that this does not prove the existence of a dyscrasia of the blood, because many innocent tumors are also hereditary.

Recurrence of cancer after its removal is, as is well known, extremely common. The cause of this is assumed by the generalist to be the pre-existing dyscrasia of the blood. The localist claims, on the other hand, that it is the result of successive infection. It is a clinical fact that cancers recur, sooner or later, according as the cells are loosely or firmly held together. Thus encephaloid recurs sooner than scirrhous, while epithelioma, if removed early, often never returns. This

* Surgical Pathology.

† Lawrence on Cancer.

seems to favor the idea of the disease becoming constitutional by direct infection from the primary cancer.

De Morgan gives two cases illustrative of this point. The first was one in which, on the removal of a solitary encephaloid tumor on the sole of the foot, a host of similar tumors were rapidly developed in different parts of the limb and in the lymphatic glands.* The second case was in a man who had the globe removed for a tumor of the eye, when traces of tumor elements were found in the cut surface of the optic nerve. The patient dying a year after with paralysis, the autopsy revealed a growth about the stump of the optic nerve, and another and larger one in the cauda equina. It here seemed evident that cell elements from the primary tumor had drifted in the arachnoid fluid until, becoming entangled in the network of nerves, they developed into the secondary tumor.

In reference to the relation existing between cancer and tubercle, it may in general terms be remarked that many cases of cancer occurring in consumptive families are simply coincidences, and not the result of any direct connection between the two diseases. Walsh does not believe that cancer and tuberculosis are in any way related, while Paget gives cases to prove them actually antagonistic.

The cancer cachexia has been regarded as positive evidence of the constitutional origin of the disease. There are often symptoms in the latter stages of cancer which taken together have been called secondary cachexia. These symptoms are direct results of the systemic infection, and vary in severity according to the degree of pain, amount of hemorrhage, discharge, etc., and derangement of the general system.

A specific primary cachexia has now come to be regarded by many surgeons as, to say the least, exceedingly problematical. Mr. Arnott † declares it to be a symptom of no value from any point of view. It is a fact well established by observation that cancer is more often found in persons of robust health than otherwise, and very often in long-lived families.

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* De Morgan on Cancer.

† Arnott on Cancer.

Virchow was among the first to maintain the local origin of cancer. Many of the German pathologists now advocate it, among whom are Waldeyer, Thiersch, and Billroth. In the recent discussion in London the "localists" and "generalists" were about evenly divided as to numbers, which shows the great progress of these views during the past few years. De Morgan, Hutchinson, Simon, Arnott, Erichsen, Moxon, and Gull have declared their belief in the local origin of the disease. Here then is the practical point in the whole question. If we accept as correct the theory of blood-origin, we must give preference to the constitutional treatment, which every one knows has thus far proved utterly powerless. The localist, on the other hand, bases the hope of cure upon complete and early removal.

If it be urged that the diagnosis of cancer is uncertain in its earlier stages, the fact remains that the welfare of the patient would not suffer so much in the removal of an innocent tumor *early* as by the *late* excision of a cancer.

A word as to the curability of cancer before entering upon the subject of its treatment. Well-authenticated cases are on record of the spontaneous cure of cancer. Walsh refers to one case reported by Nicod and several cases observed by Bayle. Many surgeons of large experience report cases well twenty years after operation. Dr. Willard Parker has recently reported three cases continuing well after twenty, twenty-two, and twenty-seven years.

The treatment may be embraced under two heads, the constitutional and local. I need not remark that nearly every leading preparation of the materia medica, and hundreds which have no place there, has been recommended at one time and another for the cure of cancer in some of its forms, until it would seem vain to hope that any mere drug will ever rise to the dignity of a remedy in the disease. Arsenic is believed by some to possess a certain power over the affection, and hence has been recommended after extirpation of cancer to prevent its recurrence. Marsden * says "carbonate of soda and other alkalies have undoubtedly a tendency to arrest the growth of cancer." Dr. Willard Parker assigns mental anxiety as the cause of the disease in forty-five of his cases, and in view of the fact urges the employment of what he terms "moral treatment." We know mental anxiety is the cause of many other diseases, and its relation to cancer should therefore be carefully studied.

The local treatment of cancer embraces four methods: 1. Compression; 2. Electrolysis; 3. Excision; 4. Caustics.

Recamier published in 1829 thirty cases of cancer treated by compression alone with the view of producing atrophy. Of these ten were cured, and the remainder, with two exceptions, more or less benefited. For a time it was considered a great conquest in therapeutics, but after a more thorough trial in the Middlesex Hospital and elsewhere it was deemed inefficient, and is now very rarely if ever employed.

The first reported case with which I am acquainted where electricity seemed to possess any remedial power in cancer was reported by Dr. Easton, and was in the person of a lady who, having been struck by lightning, found that a scirrhous tumor with which she was affected, and which had resisted various modes of treatment, gradually disappeared. It is unnecessary to add that since that time many experiments have been made with electricity with results so well known that I shall not repeat them here. Suffice it to say that in my opinion electricity as a remedy in cancer is not to be compared to such agents as the arsenical mucilage, or indeed to any of the caustics in common use.

Excision has long been a favorite remedy with the profession, and in many cases, as is well known, is the most efficient of all modes of treatment. I may add that the

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* Marsden on Cancer, page 90.

tendency among surgeons at the present time is to use the knife at an earlier period of the disease and excise more of the surrounding tissues than formerly, and that the results are thought to be more satisfactory.

The treatment of cancer by caustics is of almost equal value with that by excision, and is so recognized by many recent authorities. The agents which are in most common use are the strong sulphuric acid, nitric acid, caustic potash, terchloride of antimony, bromine, chloride of zinc, and arsenious acid. The principal objection to most of these is the excessive pain attending their application. The least painful of the above-named is the arsenious acid, used according to the method practiced by Dr. Marsden, of the London Cancer Hospital, who after an experience of nearly twenty years, and covering upward of six thousand cases of cancer, pronounces it superior to every other caustic. He recommends it in every form of cancer, except the cystic or colloid varieties—provided the disease does not exceed four inches square in size—when removal by the knife appears to be the only remedy. Arsenic may be used in this way for cancers in every situation, except the interior of the mouth or nose, localities where the nature of the remedy makes it dangerous. The formula used at the cancer hospital is the following:

℞. Arsenious acid, ... ʒ ij;
Mucilage of gum acacia, . ʒ j.

Mix into a paste too thick to run. This is to be spread over the entire surface of the cancer, provided this does not exceed one square inch in size; a bit of dry lint is then placed over the sore in order to absorb any excess of paste. In the course of an hour the lint becomes dry and hard, and adheres firmly to the parts. In the course of twenty-four hours some inflammatory action is visible in the tissues immediately adjacent to the cancer. There is often also some pain, but this is not usually severe, and lasts but for a day or two. After the lapse of two or three days, according to circumstances, bread-and-water poultices, changed every few hours, are to be constantly applied over the sore. A distinct line of demarkation is usually to be seen by this time, and the slough gradually separates and comes away, leaving a healthy cup-like depression, varying in depth and size according to the mass removed. Granulation proceeds rapidly, and the case is then treated as a simple ulcer. The slough separates at periods varying from six to thirty days, according to its size. The disease usually comes away entire with the slough; but where this is not the case the paste is to be applied to the remaining portion, as in the first instance, every second or third day, till the desired effect is produced. The arsenic really appears to have a positive power of election, so that if applied to sound tissue along with the cancerous the diseased part alone is destroyed. Marsden's large experience seems to prove this conclusively. The arsenical paste is equally applicable to cancer, whether on the lip, face, head, arm, hand, abdomen, breast, penis, testicle, labium, scrotum, or foot; but must, as I have stated, be carefully watched, and never applied where the disease involves more than four square inches of tissue. Many medullary and scirrhous cancers can be removed in this way, but it is especially applicable to the epithelial variety. Marsden believes that nine out of ten cases of this form may be perfectly cured if taken in time.

Before mentioning my own experience in the use of the remedy I will give the history of two cases kindly furnished me by Prof. Fordyce Barker, and which he reported at the New York Library and Journal Association in 1873.

CASE I.—A lady with a most malignant type of cancer, refusing to have it removed by the knife, was treated by Marsden's method. In eighteen days after the first application of the paste the slough separated and cicatrization was soon completed. Nearly four years after removal there has been no recurrence of the disease.

Case II.—Had at one time a tumor of the right breast, which Professor Barker considered non-malignant, and which disappeared under treatment. Three years after the patient returned with a true cancer of the left breast, which had existed about a year. Marsden's treatment was at once used. It gave but little pain. In eighteen days the slough came away, and in ten more days cicatrization was complete. This was in April, 1873. The patient remained well for a year, when the disease returned in the same breast. Being in London at the time, she consulted Dr. Marsden, who decided in favor of immediate removal by the knife. The result was a wound eight inches in diameter, which healed by granulation in about two months. The further history of the case is not known.

Dr. William W. Crandall, of Andover, N. Y., has kindly furnished me notes of the three following cases occurring in his practice:

Case I.—Mr. ——, aged sixty-nine years (no history of cancer), had an epithelioma, three quarters of an inch in diameter, situated behind and a little below the left ear, of two years' standing. The paste was applied, followed in ten days by the fall of the slough, and healing of the ulcer in three weeks. The patient lived two years without any recurrence of the disease, when he died of some cardiac affection.

Case II.—Mrs. ——, aged fifty years, had an epthelioma about the size of a dime on the right cheek. A second application of the mucilage was necessary to effect the required destruction. The slough came away in nine days, and the sore was completely healed in about two weeks. Five years after she remains well.

Case III was under my own care, for the most part, after Dr. Crandall first applied the paste. The patient, aged sixty-two years, was first seen in the spring of 1872. Four years before he had a small epithelioma of the neck removed by nitric acid. Nine months after a tumor on the vertex, supposed to be a wen, commenced ulcerating in consequence of a slight blow, and assumed the character of medullary carcinoma. When I first saw him the broad, overhanging portion was two inches in diameter, and rested upon a firm base half that size. The fetor was almost intolerable. The site of the old epithelioma had also ulcerated anew. There was no glandular affection. The paste was first applied to one third of the tumor, left on two days, and another part attacked, and after the same length of time the remaining portion; poultices were then applied. The line of demarkation was perfect, but it was nearly six weeks before the diseased mass was completely removed. The bone was found to be denuded of periosteum for a space more than an inch in diameter. The healing process was very tedious. Three bony exfoliations were at different times removed, and over a year elapsed before cicatrization was complete.

Six months after the tumor of the scalp was cauterized I removed by the same treatment the recurrent epithelioma of the neck, which meanwhile had become one inch in diameter. The slough speedily separated, and in six weeks the sore was healed. There has been no return of the disease up to this date. I have treated the following cases in the same way, and with uniformly satisfactory results:

Case I.—Mr. L., aged fifty-five years, had a small warty growth on the side of the nose, which two years before began to show signs of malignancy. At that time a physician advised him to let it alone, which he did until the cervical and axillary glands became successively infected. Removal was effected by the paste in ten days, and healing complete in six weeks, without leaving any visible cicatrix. He died two years after of what was supposed to be cancer of the lung.

Case II.—Mrs. ——, aged sixty years, had an epithelioma on the forehead just above the left eye, which had annoyed her for nearly three years, and had finally attained a diameter of three quarters of an inch. The paste was applied to the entire surface. The slough came away in ten days, and in four weeks cicatrization was complete. The patient has continued well now for two years.

CASE III was an epithelioma of the face in a man aged fifty-eight years. It was ten lines in diameter, was removed in eight days, and the sore healed by granulation in six weeks. Nine months after there has been no recurrence. In this case the power of election already mentioned was well shown. The lint was accidentally moved from the point of application before it hardened, so that when he came back in two days it covered nearly as much healthy skin as cancerous tissue, but the diseased portion only had been destroyed.

CASE IV.—Miss ——, aged fifty years, whose father died of cancer, had an epithelial ulcer of two years' standing near the inner canthus of the left eye. In February, 1874, the mucilage was applied and allowed to remain on for thirty-six hours. The swelling of the eyelids and face was considerable, but soon subsided under poultices, and the cure was complete in five weeks. The patient remains well, November, 1874.

CASE V.—Mr. ——, aged sixty-four, had a flat epithelioma, situated over the superior angle of the left scapula, an inch and a half in diameter and nearly circular, which had existed for two years, and was the seat of severe stinging and darting pains. The skin was first cauterized with potassa fusa to produce a good absorbing surface, and then the mucilage applied in March, 1874. After the slough came away, some hardness remaining in a portion of the sore, this was treated in the same way. The cure was complete in two months, and continues so November, 1874.

CASE VI.—Mrs. R., aged forty-nine years, had a medullary cancer of the arm seated over the middle of the triceps muscle. It first appeared as a wart, six years before, and had gradually increased in size until it measured three inches in diameter and rested upon a base about half that size. Increasing pain compelled her to seek relief. The fetor was excessive and hemorrhages frequent. There was a hard tumor in the axilla, which was very painful. The case was similar to one of Marsden's, in which he removed the tumor with a loop of wire, and then applied the mucilage to the base; but in order to test the power of the arsenic I applied it to one fourth of the surface, repeating the operation every other day, until the whole was cauterized. The mass was then cut away to the base without pain, and the paste once more applied, which brought away the remaining portion six days after. The cure was completed in twenty-six days. In the mean time the tumor in the axilla proved to be an abscess, was opened, and soon healed. The patient remains well at present—November, 1874—while her general health has greatly improved.

CASE VII.—Miss ——, aged forty-five years, applied for treatment at Demilt Dispensary, March 6, 1874, with a malignant tumor on the forehead just above the outer angle of the left eye. It was oblong, nearly two inches in length and one in width, with considerable elevation. It was soft, very vascular, and often bled freely. Four years before the growth was treated for a time with terchloride of antimony, but the severity of the pain attending the application caused her to abandon it. The tumor was rapidly reproduced. In October, 1872, it was almost entirely removed with nitric acid. When first seen by myself the tumor was larger than ever before. The mucilage was applied and allowed to remain thirty-six hours, when, the line of demarkation having nearly encircled the growth, poultices were applied. Two days after the paste was re-applied to the deepest portion. In two weeks the slough separated, and granulation proceeded rapidly until the wound was almost healed, when diseased tissue again showed itself. It was necessary to make another application of the paste, with the result of securing perfect cicatrization in sixty days. Six months after the patient continues well.

To summarize my experience in the use of the arsenical mucilage in cancer, I believe—

1. That it is to be preferred to any other caustic, as giving less pain during its application.

2. In cases to which it is adapted it is superior to excision, (*a*) because of the greater readiness of patients to submit to it, (*b*) the less amount of shock, and (*c*) the avoidance of anæsthetics.

3. It acts in a remarkable degree on the cancer, while the surrounding healthy tissues are comparatively unaffected by it.

4. When properly used it is free from danger, and the fear therefore of poisoning is groundless.

5. It is most efficient in the earlier stages of cancer, the same being true of all other modes of treating this affection.

6. It being of such easy application, cancer patients may be treated promptly at home and by their usual medical attendant.

7. Finally, a general acceptance of this plan of treatment would so far promote the early removal of cancer that many lives, which would otherwise be lost in consequence of the dread of a surgical operation, would thereby be saved.

NEW YORK.

FIBROID TUMOR OF THE NECK OF THE UTERUS NECESSITATING CESAREAN SECTION.

BY J. N. M'CORMACK, M. D.,
Late Resident Physician to the Cincinnati Hospital.

I was called, July 25, 1874, in consultation with Drs. Young and Moss, to see Mrs. M. O'D., aged forty-four years, who had been in labor fifteen days with her fifth child. With the exception of the two last days she had been under the charge of a midwife. During the first week a young physician was called in, who pronounced the woman not in labor! On my arrival I found her much prostrated, with countenance anxious, pulse frequent and feeble, abdomen much distended and tender; had had some feeble labor-pains during the day. On making a vaginal examination I found a firm, non-fluctuating tumor in the left posterior portion of the neck of the uterus, occluding the superior strait, excepting a small space in the right anterior region, through which the finger could be passed up to the head of the child, high up in the right iliac fossa. The parts were swollen and tender, and the examination gave great pain. During the examination there was an escape from the vagina of very offensive gas and fluid from the decomposing child.

Having placed the patient under the influence of chloroform, I attempted, with the right hand in the vagina and the left to the surface of the abdomen, to displace the tumor from the superior strait, and bring the head of the child down in such position that I could reach it with the perforator; but in this I completely failed, the tumor being perfectly immovable, and the space on its right so small that a delivery by taking the child away fragment by fragment was impossible.

I was thus, in my judgment, reduced to the fearful necessity of making a cesarean section on a living woman for a dead child, and too with the woman in such condition that there was hardly a chance of saving her life. It was indeed a dreadful alternative.

With the consent of the husband, and at the request of the physicians in attendance, and with their assistance, I proceeded to perform the operation in the ordinary way, and completed it without difficulty. Found the peritoneum covered with recent lymph. Some hemorrhage occurred from the uterine vessels, but was readily controlled by pressure with the fingers. On making the incision found the tumor and the head of the child occupying the position heretofore described. The woman rallied after the operation and seemed to do well for a few hours, then began to sink rapidly, and died in twenty-six hours. She had suffered from indefinite uterine symptoms from the time of her last confinement, and these had increased in intensity during gestation.

New Haven, Ky.

A CASE OF REMITTENT FEVER TREATED BY QUINIA HYPODERMICALLY.*

BY A. B. NELSON, M. D.

Mr. —— came last summer, from an excessively malarial district in Mississippi, to this healthy region in the hope of recovering from a fever and ague which had pursued him for the past five years with but few and very short intermissions. During the first three years of this time he had used quinine in almost unlimited quantities, at first with some benefit, but finally without effect. For two years past his old enemy had persistently annoyed him, but such was his want of faith in quinia and his repugnance to its use that he had really taken little or no medicine whatever during that period.

I saw him first in September last, when I found him with an attack of remittent fever, accompanied by an excessively irritable stomach, constipated bowels, and a temperature of 102°. I directed him to have crushed ice *ad libitum*, a couple of doses of quinia, and some cathartic pills. The first portion of quinia was immediately rejected; the second was not given. The purgative acted well. Cincho-quinine and Fowler's solution were given, but neither were retained. A similar result followed the exhibition of a favorite combination in this locality, consisting of quinia, Prussian blue, capsicum, and aloes. Finally hypodermic morphia allayed the gastric irritability and secured sleep, and with careful nursing and abundance of ice convalescence soon set in. Some days after, while riding out, the patient had a severe chill, followed by considerable fever. The attempt to give drugs by the mouth again failing, I gave him quinia hypodermically, after the following formula of Dr. Lente, published in the New York Medical Journal in March last:*

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*Read before the Boyle County Medical Society, November 3, 1874.

℞.	Quinine sol., ...	50 grs.
	Sulph. acid dil., ...	100 min.
	Water, ...	1 oz.
	Carbolic acid liq., . . .	5 min.

Twenty minims of this were injected, drop by drop and very slowly, through two punctures in the arm a slight distance apart, the patient complaining of no pain, and the operation being followed by the least possible amount of irritation. The injections were repeated morning and evening for two weeks, at first containing but two grains of quinine, subsequently double this quantity. More than fifty grains of the salt were used. Neither tinnitus aurium nor the other phenomena of cinchonism were at any time observable. The fever slowly declined, and in about a week had entirely disappeared.

My object in reporting this case is simply to call the attention of the profession to the safety, utility, economy, and sometimes the necessity of the hypodermic use of quinia. If quinia hypodermically is at all liable to be followed by abscess, the tendency seems to be no greater than that of morphia and atropia, which we all know is practically *nil.* If it be true that the full therapeutic effect of quinia may uniformly be produced by its hypodermic employment without the characteristic phenomena of cinchonism, it is a consideration of no small value, for there are persons in whom quinia causes such distressing head-symptoms that it is almost contra-indicated.

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* Dr. Lente has recently published some modifications of the above recipe, but this seems to me all that could be desired. Prof. Fales, of Center College, who kindly prepared the solution for me, thinks it had better be run through Swedish filtering-paper, as ordinary filtering-paper does not thoroughly separate the undissolved quinine crystals; and as the carbolic acid is slow of admixture, the solution should stand several hours before being used.

Dr. Lente states that in the treatment of ordinary intermittent fever it is seldom necessary to inject more than six grains. In the more obstinate cases we may have to use nine or ten. When a patient has a good deal of adipose tissue, and is not intolerant of the injection, forty minims may be used at one time.

DANVILLE, KY.

TRAUMATIC ANEURISM OF THE POPLITEAL ARTERY.

BY GEORGE N. MONETTE, M. D.,
Physician to St. Anna's Asylum, New Orleans, La.

J. R., aged twenty-five years, was admitted into the Charity Hospital on the 23d day of September, 1870, then under my charge, with a pistol-shot wound of each thigh received on the 8th instant. There had been sudden hemorrhage, which, however, was readily controlled. The ball was excised upon the day that the wound was received. The wound had been nearly effaced upon admission. The ball entering the left thigh, three and a half inches above the patella, ranged upon the inner side of the limb, wounding one of the muscular branches of the popliteal artery. This wound had cicatrized perfectly prior to admission. Perfect immobility of the limb, with cold-water dressings, were maintained consistently for five days. The patient insisted upon walking about the inclosure, which broke up the old adhesions about the track of the ball, causing considerable inflammation about the entrance wound anteriorly. There was an acute pain attendant upon it, which the application of a poultice relieved. A diffused tumor had gathered upon the third day afterward, which afforded a distinct aneurismal thrill, detected upon the antero-lateral surface between the wounds. Digital compression of the artery was made until so much irritability was incurred that the tourniquet had to be substituted, and even this had to be discontinued after a few days. Flexion of the limb was then resorted to, which greatly reduced the dimensions of the tumor. Absorption took place rapidly, and the contour of the limb was restored.

Patient left hospital October 23d. The tumor re-appeared within seven days following, and became much larger and more circumscribed than before. Ligation of the femoral at the inferior part of Scarpa's triangle was successfully practiced by a neighboring physician. The wound united kindly, and the aneurism was cured.

From the rapid improvement obtained from *flexion* I am persuaded that the aneurism would have been cured by this method; but the patient was refractory, and would not remain in hospital long enough to give it a fair trial.

NEW ORLEANS.

Reviews.

Transactions of the State Medical Society of Pennsylvania, 1874.

It is with much pleasure that we notice the Transactions of the Medical Society of Pennsylvania, a state which has done so much to advance the profession of medicine. The volume before us contains about four hundred and fifty pages, and embraces papers of the greatest excellence, some of which deserve a more lasting record than is assured in an annual report.

We regret that we are able to make only brief mention of a few of these papers. The first is the address of the president, Dr. A. B. Kuffer, on the rather trite subject of "Our Profession." He urges to renewed efforts in advancing the scientific status of the profession, and argues in favor of a thorough medical training.

Dr. Thomas M. Drysdale, of Philadelphia, follows with an address on surgery, in which he treats at length of tracheotomy and its bearing on the different affections of the larynx and trachea. Dr. Drysdale indicates the principal affections for the relief of which this operation is undertaken, as follows: 1. Inflammation of the larynx and trachea, and its results; 2. Spasm of the larynx; 3. Abnormal growths in the larynx; 4. Paralysis of the larynx; 5. Pressure from tumors, aneurisms, or abscesses; 6. Foreign bodies in the windpipe. This classification is quite correct, but the writer might have added that tracheotomy is sometimes performed in order to remove tumors in the trachea as well as those in the larynx. The directions as to the manner of operating and the different locations of the point of entrance are lucid and of value to the student of medicine. The remarks as to the after-treatment are quite pertinent and judicious.

The address in obstetrics, by Dr. William B. Atkinson, of Philadelphia, is of especial value, as it affords a complete bibliography of the different subjects for several years past. Its indefatigable author enumerates all, or nearly all, the advances made in this department during the past year.

We next have a report, by Dr. P. D. Keyser, on one hundred and thirty-two cataract operations which he has performed during the last six years in the Philadelphia Eye and Ear Infirmary, the Wells Ophthalmic Hospital, and in private practice. The operation employed was Graefe's modified linear extraction, which appears to afford the most favorable results. Although Dr. K.'s statistics would indicate successful operations, we confess we are not able to see how he arrives at his figures, nor do we think that vision of one tenth should be considered perfect. Liebreich's method of corneal section did not afford satisfactory results, and was abandoned after only three trials. Iritis set in after each operation, and thus neutralized its beneficial effects.

Dr. Laurence Turnbull follows with a short paper on deaf-mutism, in which he strongly urges that the "German system" be introduced in all asylums for the deaf and dumb. We heartily indorse this, for our observation has led us to believe that it is the only method by which these unfortunate persons can be made useful members of society.

"Diagnosis of Obscure Injuries of the Hip" is the title of a short paper by Dr. O. H. Allis, of Philadelphia, in which the author calls attention to the relation the great sacro-sciatic notch bears to the acetabular cavity.

Dr. Wm. H. Pancoast has two short papers; one on a new operation for ununited fracture of the tibia, and another on a new method of treating intra-capsular and extra-capsular ractures of the femur and its upper third.

Dr. J. Solis Cohen, of Philadelphia, presents the best paper in the volume. It treats of croup in its relations to tracheotomy. It is the most exhaustive monograph on the subject in English literature, and we regret exceedingly that our limited space precludes a full notice of the article. Dr. C. encourages his colleagues to renewed efforts in this direction, and gives them tabulated statements of the results achieved by the most experienced operators. We quote the results secured by the most celebrated French, German, English, and American operators:

Trousseau had 14 recoveries in 24 operations, and previously 20 in 80 cases; Bardinette operated 54 times, with 17 recoveries; Calvet 23 times, with 13 recoveries; Henriette (Brussels) 8 times, with 4 recoveries; Wilms (Berlin) operated 335 times, with 103 recoveries; Roser (Marburg) 42 times, with 19 recoveries; Steiner (Prague) 52 times, with 18 recoveries; Ebert (Berlin) 13 times, with 6 recoveries; Spence (Edinburgh) operated 87 times, with 28 recoveries; Buchanan (Glasgow) 39 times, with 13 recoveries; in London hospitals 170 times, with 57 recoveries; Pancoast (Philadelphia) operated 9 times, with 4 recoveries; Jacobi (New York) 67 times, with 13 recoveries; Krackowitzer (New York) 55 times, with 16 recoveries; Von Roth (New York) 48 times, with 11 recoveries.

We can not, despite short space, forego quoting the conclusions drawn by our author from the points discussed in his paper:

"1. That there are no insuperable contra-indications to tracheotomy in croup.

"2. That the administration of an anæsthetic for the purpose of controlling the child's movements is admissible in performing the operation, but that it should be used with great caution.

"3. That a careful dissection should be made down to the windpipe, and hemorrhage be arrested before incising it, whenever there is at all time to do so.

"4. That the incision should be made into the trachea as near the cricoid cartilage as possible, to avoid excessive hemorrhage and subsequent accidents which might occasion emphysema.

"5. That a dilator should be used or a piece of the trachea be excised whenever any difficulty is encountered in introducing the tube.

"6. That the tube should be dispensed with as soon as possible, or altogether if the case will admit of it.

"7. That assiduous attention should be bestowed upon the after-treatment, especially that of the wound; and that a skilled attendant should be within a moment's call for the first twenty-four or forty-eight hours immediately following the operation."

These results are sufficiently favorable to encourage the profession in operating whenever the operation is indicated. The reason why the continental results are so good is that the knife was resorted to at an early stage in the disease, before any toxæmia had occurred; and in the second place, because the majority of the patients were operated on in hospitals, where they had not only the advantages of prompt assistance, but persistent after-treatment of the best character.

Dr. Davis, of Wilkesbarre, reports a case of removal of an ovarian tumor per vaginam, and final recovery of the patient.

Altogether these Transactions are a most valuable addition to our medical literature. R. C. B.

A Guide to the Practical Examination of Urine. For the use of Physicians and Students. By JAMES TYSON, M. D., Hospital Lecturer on Pathological Anatomy in the University of Pennsylvania, etc. Philadelphia: Lindsay & Blakiston. 1874.

Dr. Tyson, already favorably known as an author, again comes before the medical public, this time with a work which will interest a far larger circle of readers than either of his former productions. "The Cell Doctrine" and "An Introduction to Practical Histology," both good books in their way, and evincing in their author great accuracy in research and a praiseworthy industry, addressed themselves rather to the special than the general reader. The present work, however, or something of its kind, is needed by every physician. The examination of the urine has come to be almost as much a part of the daily labor of the doctor as the use of the thermometer. As a help in this direction we know of no more pleasant or trustworthy guide than the handy little book under notice. Dr. Tyson has put a deal of honest work in it, while the publishers have enabled him to give it a completeness of illustration altogether unusual.

Cyclopedia of the Practice of Medicine. Edited by Dr. H. von Ziemssen, Professor of Clinical Medicine in Munich, Bavaria. New York: William Wood & Co. 1874.

In this portly volume we have a book of seven hundred and eight pages, beautifully printed on clear, thick paper, and presenting altogether an appearance attractive to the eye. The publishers in undertaking to issue this cyclopedia in the English tongue have engaged in a great enterprise, but the style in which they have brought out the first volume shows that they are equal to the task. They have engaged as American editor Albert H. Buck, M. D., of New York; and the translators, while they are all accomplished German scholars, are at the same time correct, graceful writers of English. This volume treats of acute infectious diseases, in which are included typhoid, relapsing, and typhus fevers; cholera, the plague, yellow fever, dysentery, and epidemic diphtheria. The object of the cyclopedia, which is to be comprised in fifteen octavo volumes, is to furnish "a complete picture of the present state of medical knowledge in the departments of etiology, pathology, and treatment;" and from the volume before us we have no doubt the object will be fully accomplished. If the papers that are to follow come up to the high standard attained by those which compose this volume, the work will take rank with the foremost publications of the day, affording not only a summary of medical science and practice, but a series of memoirs having the fullness and completeness of labored monographs.

The natural curiosity of readers to know something about the history of their author is gratified by short biographical sketches prefixed to this volume of the writers who composed it — Prof. Liebermeister, Prof. Lebert, Dr. Haenisch, Prof. Heubner, Dr. Oertel, and Prof. Ziemssen, the editor. Prof. Liebermeister introduces the subject of acute infectious diseases by an admirable paper, translated by Thos. E. Satterthwaite, M. D., in which he presents the views now generally accepted on that interesting subject. He holds that these diseases owe their origin always to a specific cause—a *contagium vivum*—to germs which are never developed by spontaneous generation, but in every instance come from previous germs, which have the power to reproduce themselves to an unlimited extent. Hence it is that such complaints are as a rule not sporadic, but epidemic. They were once far more destructive than now, for the reason that the conditions under which the germs are multiplied were not so well understood as they are at this day. The epidemics of cholera, typhus fever, yellow fever, and small-pox, frightful as they have been in our period, are insignificant, as Prof. Liebermeister remarks, in comparison with the epidemics of earlier centuries. Thus, while in the city of Basle two hundred and five people died of cholera in 1855, and four hundred of typhus fever in 1865, out of a population of forty-two thousand, in the same city three centuries before the deaths from a single visitation of the plague were four thousand; and from the black death, in the fourteenth century, fourteen thousand of its population were carried off. It is not so much because we have acquired the art of curing disease as that we understand much better the circumstances under which epidemics originate and spread that they have ceased to be so fatal. In other words, it is by sanitary science rather than by therapeutics that the beneficent result has been brought about.

As bearing upon this point, Prof. Liebermeister adverts to the interesting fact that in the late Franco-Prussian war the number of deaths from disease were far fewer than those that occurred on the battle-field, which, he remarks, is the first instance in modern warfare in which the opposite was not true; and this he ascribes in a great measure to the advances which the science of public hygiene has made in late years.

The poison of infectious diseases, it is now generally conceded, must be supplied from without, or the diseases will never arise. At Inkermann, where the battle-fields were strewed with corpses, the stench of which finally drove both armies away, no pestilence occurred. No outbreak of typhus was experienced during the investment of Metz. "It is unanimously said of the plague, cholera, and yellow fever that they never arise spontaneously, at least on European soil." It is not so universally conceded that they never originate on American soil. There are those who believe in the domestic origin of our epidemics of yellow fever and cholera, but the argument, we think, is against them. "The spontaneous origin of small-pox, measles, and scarlet fever," says Prof. L., "could scarcely find a defender now. Perhaps the time is not far distant when the doctrine of the spontaneous origin of typhoid fever, typhus fever, dysentery, etc., will be universally rejected."

In making a differential diagnosis in these affections it is not upon the similarities or the differences in symptoms or pathological anatomy that we are to rely, but upon the specific poison which has been the excitant of the attack. Quotidian and quartan fever, malarial neuralgia, and malarial diarrhea, widely as they differ in their phenomena, are all forms of one disease having a common cause. The simplest diarrhea preluding cholera is in fact cholera; while, on the other hand, "a severe and even deadly cholera morbus is to be marked as another disease." The difference is etiological, not symptomatic.

Dividing infectious diseases into two classes, miasmatic and contagious, there are some which hardly come under the definition of either. Cholera is one of these. It is not conveyed—as measles, scarlatina, and small-pox are—directly from person to person. Physicians and nurses are not more subject to it than other persons. It can not be communicated by inoculation. A French physician in Warsaw, carried away by excess of scientific zeal, ventured to swallow matters that had been vomited by cholera patients, and yet did not die of cholera. On the contrary, thousands are attacked with cholera, when the disease is epidemic, without having touched or even seen a cholera patient; all of which is opposed to the theory of contagion.

"Opposed to this, however," says Dr. Liebermeister, "it is quite as firmly settled that cholera never appears in a locality without being transported into it from an already infected locality." If we are not able to trace every case to its source, it is no more than may be affirmed of small-pox, which no one believes ever to have a spontaneous origin. The negative fact only proves the want of close, accurate observation. If we knew the history of every case, it can hardly be doubted that we should see each one springing from the specific poison. The first cholera epidemic traveled slowly from India, and was nearly two years reaching Paris. Now that the modes of conveyance have been so much accelerated the pestilence makes the journey across Europe in a few weeks. In spreading from Alexandria to Ancona, in 1865, it occupied just the time required to transport passengers by the steamers, and in 1867 it spread from Rome to Zurich in four days. Besides these facts, it is well known that the epidemic always follows lines of travel, against the current of rivers, and in the face of winds; and that when it breaks out in a country it is not in the interior that it first appears, but always in the ports at which ships have arrived from infected districts. These facts point strongly to contagion, and we can hardly resist the conclusion that, while cholera is not communicated from person to person, it nevertheless never originates spontaneously, but that affected persons are always the medium through which the disease is transmitted.

How are these opposing facts — that diseases are not communicated from person to person, and yet can only be engendered in healthy subjects through the medium of infected persons—to be reconciled? We have only to suppose that, as in the case of many parasitic worms, the poison of the disease must pass through two stages of development, and, in the opinion of Dr. Liebermeister, the difficulty is solved. In the case of cholera the organisms which are at the root of the disease undergo some change outside of the human body, by which they become capable of exciting the disease if taken into the system. The fresh discharges of cholera patients introduced into the body of another will not reproduce themselves, and consequently develop no cholera; they must pass through another stage before they act as a poison. "This occurs when the discharges remain some time standing, but particularly when they come in contact with great quantities of organic substances that rapidly decompose, as in water-closets, dung-heaps, sewers, or, too, in the soil of inhabited localities that are damp and rich in organic *débris*. In this stage of development there seems to be a considerable increase of the poison, and after this reproduction it is again in a condition to multiply further in the human body and produce the disease."

A very able article on typhoid fever, also by Prof. Liebermeister, and translated by Drs. Delafield and Schauffler, follows this excellent introduction. It forms a treatise of nearly two hundred pages, and presents all the important facts relating to typhoid fever with which the researches of physicians of all countries and ages have enriched medical literature. We are glad to find that the author is an advocate of quite another than the expectant method of treatment in this disease. He regards quinine, digitalis, and cold baths as "positively indispensable to the effective treatment of the fever." He even goes further, and intimates a belief that iodine and calomel may exert something of a "specific influence" over typhoid fever. The mortality he found "notably less" in the cases in which he administered iodide of potassium. Calomel he gives in ten-grain doses, and is confident that its effects are beneficial. He repeats the purgative in doses of seven and a half grains, giving three or four such doses in the twenty-four hours. His patients are seldom salivated; the diarrhea, after the first effects, seems to be diminished; the temperature is reduced for a short time; the patients are made more comfortable, and the rate of mortality is "decidedly lower." But undoubtedly the abstraction of heat by cold water is the most efficient means of reducing the mortality of this disease. Prof. L. has the temperature of his patients taken every two hours, day and night, and plunges them in cold water whenever the temperature in the rectum rises to 103° or to 102.2° in the axilla. He dwells with emphasis on the importance of continuing this treatment. Little is to be accomplished by a few baths; they must be repeated again and again while the fever persists, in very severe cases as often as every two hours. In the hospital at Basle he relates that the number of baths required by some patients has exceeded two hundred! But in most cases, especially if antipyretic drugs are administered, four to eight baths a day will be found sufficient.

What ought to be so pleasant a remedy to patients parched with fever, it seems, is decidedly disagreeable to a majority of them, and they are induced with some difficulty at first to submit to the treatment; but after a little experience such is the comfort derived from the baths that there is no further opposition to them.

The next three papers are by Professor Lebert, and treat respectively of relapsing fever, typhus fever, and cholera. The first was translated by Dr. Van Harlingen, the second by Dr. Fitz, and the last by Dr. Whittaker. Together they make more than a third of the volume, and are drawn up with marked ability. The writer believes that typhus, like typhoid and relapsing fevers, is spread by a germ; an opinion, he says, in which all later writers concur. Cholera too he holds, with Liebermeister, is caused by a germ. A few pages are devoted to cholera morbus—or cholera nostras, as he terms it—which he regards as quite a different affection from cholera Asiatica. Of this indigenous disease he relates, after some historians, that Diogenes died, the attack having been produced by eating raw cow's feet; "a melancholy end," he adds, "to the philosophical dweller in a tub!" He lays great stress upon drinking-water as a factor in epidemic cholera, and the facts bearing upon the subject cited by him are certainly startling. For example, the cholera of 1866, in London, was confined chiefly to the east end of the city, which was supplied with water from a reservoir "which is little better than an open excrement and sewer receptacle." The mortality in the district was from sixty-three to one hundred and eleven in ten thousand. In other quarters, supplied with pure water, it was from two to twelve in ten thousand.

In regard to treatment, Dr. Lebert holds, with the rest of the world, that prophylaxis is of the utmost importance, and that in an attack nearly all is to be done that can be done in the stage of diarrhea; but we can not agree with him that all experience has shown that internal medicines are useless at a later period. Even at a more advanced stage of cholera medicines have often appeared to arrest it. His therapeutics form the lame portion of Prof. Lebert's article on cholera, which as a whole is full, judicious, and exceedingly instructive.

The next article is on the plague and the black death, by

Prof. Liebermeister, translated by Normand Smith, M. D. It is the shortest in the volume, and properly so; for whatever may be the historical interest of these diseases to American and English readers, they possess no other. It is followed by a paper, not much longer, on yellow fever, written by Dr. Haenisch and translated by Dr. Emerson. Our own literature is so full on the subject of this fever that American readers have no need to refer to authors who from their situation are necessarily much less familiar with the disease than those who have lived in its midst. Next follows a very thorough account of dysentery, by Prof. Heubner, which will interest physicians every where. It is translated by Chas. P. Putnam, M. D. We are sorry that our space forbids any thing more than a mere mention of the article, to a notice of which many pages might profitably be given. The volume closes with an exhaustive treatise on diphtheria, by Dr. Oertel, who has for translators Dr. Bridge, Dr. Stimson, and Dr. Emerson. We think it likely that of all the papers that make up the volume this article will attract most attention and be read with the deepest interest. But all will be extensively and carefully read; and we feel very safe in saying that few readers will rise from their perusal without a feeling of respect for the candor, the learning, and the ability of their authors. We shall look forward with pleasure to the appearance of future volumes of the cyclopedia, which promises to be the richest contribution made to medical literature during the present century.

Croup and its Relations to Tracheotomy. By J. S. Cohen, M. D., Lecturer on Laryngoscopy, etc., in Jefferson Medical College. Philadelphia: Lindsay & Blakiston. 1874.

The above work is a reprint in book-form of Dr. Cohen's admirable paper published in the Transactions of the Medical Society of the State of Pennsylvania. We have expressed elsewhere our opinion of the author's labors.

The Physician's Visiting-List for 1875. *Contents:* Almanac; Table of Signs; Marshall Hall's Ready Method in Asphyxia; Poisons and their Antidotes; Table for Calculating the Period of Utero-gestation.—Blank Leaves for Visiting-list; Monthly Memoranda; Addresses of Patients, Nurses, and others; Accounts asked for; Memoranda for Wants; Obstetric and Vaccination Engagements; Record of Births and Deaths; General Memoranda, etc. Philadelphia: Lindsay & Blakiston.

For twenty-four years the little work of which the above is the title has been our daily companion. It is compact, handy, and in all respects the best visiting-list extant.

Transactions of the Medical Association of the State of Alabama, 1874.

We have here a volume, including the index, of four hundred and twenty-seven pages; a volume made up not of papers such as might be drawn from the text-books of medicine, but of original observations. Dr. Michel has a most interesting account of yellow fever in Montgomery in 1873. Dr. Cochran has a more extended history of the same fever as it appeared in New Orleans, Mobile, and other places the same year. This is followed by a report, by Dr. Anderson, on dengue. Dr. Jordan has a history of cholera in Birmingham in 1873; Dr. Dement gives an account of cholera as it appeared in Huntsville in the same summer; Dr. McDaniel writes a practical paper on hemorrhagic malarial fever in Alabama; Dr. Biggs contributes a report on the mortality statistics of Selma; and so the volume is composed in very large part of matters which have the charm of freshness about them. They are additions to medical knowledge, and place these transactions immeasurably in advance of those volumes which consist of a mere rehash of Watson, Flint, Tanner, and the hand-books written for students of medicine. We applaud our brethren of Alabama for the good taste and judgment displayed in this volume, as well as for their zeal and industry.

The annual address of the president, Dr. Weatherby, and the oration by Dr. Seelye both evince care in their preparation, and abound in striking views and wise suggestions. The paper, by Dr. Peterson, on puerperal eclampsia is practical and instructive. He thinks that the disease is sometimes produced by tight lacing, and says that he has noted a decided increase of it among the females of the negro race, as a result of their having fallen into this fashion since they became free. Besides these, and also elaborate papers by Dr. Cochran on the white blood-corpuscle, and on the relations of physics and chemistry to medicine by Dr. Summers, there are numerous short articles which enhance the value of the volume.

Clinic of the Month.

A New Instrument for Injecting the Lower Bowel and the Bladder.—Dr. Hegar has recently published a communication on the introduction of fluids into the large intestine and the bladder (Berlin Clinical Weekly). He recommends for this purpose a very simple and useful apparatus, which possesses many advantages over ordinary syringes, pumps, and similar instruments. Aside from its greater cheapness, it is kept clean more easily, and obviates the application of any force or pressure, and prevents the entrance of air, which is of great importance in the treatment of diseases of the bladder. The method depends on the following conditions: in a state of quiescence and a perpendicular position the amount of intra-abdominal pressure is equal to a column of water twelve inches in height; in a reclining posture this is equal to a column of five and five eighths inches; when the pelvis is raised, to three and a fourth inches; in the elbow-and-knee posture, or "on all fours," it is even as slight as one and five eighths inches. This proves that but little pressure is required to introduce fluids into the cavities of the abdomen, and this can be modified by the different postures, as well as by the height to which the fluid used is raised. The funnel-like apparatus recommended by Hegar consists of a rubber tube two feet in length, on one end of which a zinc or gutta-percha tube is attached, with an olive-shaped bulb; a funnel is fastened to the other end of the tube. When the bladder is to be injected a catheter is substituted for the tubing. In order to facilitate the escape of air water is allowed to pass through the tube, which is then compressed so that all airbubbles may be forced out. If it be desirable that the fluid injected remain in the intestinal canal for any considerable period of time, the most favorable position above mentioned is taken and the funnel but slightly elevated. One half to one pint of water is necessary for a clyster. In order to wash the entire colon about a quart will be needed, and even more, to overcome any incarcerations.

OCCIPITO-POSTERIOR POSITIONS OF THE HEAD.—Dr. Angus Macdonald concludes a valuable paper on the nature and treatment of difficult cases of this nature with the following practical points:

"1. In occipito-posterior positions, if these are persistent, we may safely assume that we have some pelvic peculiarity or disproportionately large head to deal with, and, as a general rule, all attempts at artificial rectification of the position of the head will prove abortive, and are even dangerous if attempted to be effected by means of levers, forceps, etc.

"2. The only exception is when temporary delay is occasioned from accidental displacement of a small head; in which case one has the alternative of waiting till the normal powers of parturition effect delivery, or of facilitating that event by timely rectification of the head by the hand.

"3. In cases which threaten to end as 'face to pubes,' and are at the same time decidedly difficult, it is best to pull the head through cautiously, and to abstain from every attempt at rectification of the head; special care being taken to guard the perinæum, as the occiput when passing over it greatly distends it.

"4. In cases of obstructed occipito-posterior positions in which the rotation takes place at the outlet of the bony pelvis, while the head is in the grasp of the curved forceps, there is very great danger in the case of primiparæ of the forceps lacerating the soft parts on account of the oblique position into which they are thrown.

"5. To prevent this accident either, *first*, the blades ought to be cautiously removed, the head fixed in position, and the uterus allowed to finish the expulsion of the head; or *second*, the curved instruments may be re-applied and adjusted to the altered relation of parts; or *third*, a straight short pair may be applied, and the further advance of the head thereby secured." (Edinburgh Medical Journal.)

AMPUTATIONS BY GALVANO-CAUSTIC.—Prof. Bruns, of Tubingen, has recently reported the results (Archive for Clinical Surgery) of ten cases in which limbs have been amputated by means of the galvano-caustic apparatus. One finger, one arm, two legs, and six thighs were amputated in this way. In all of these cases a zinc-iron battery was used. One to four elements were necessary, varying as the size of the limb. The loop of platinum wire employed varied in thickness from six tenths to eight tenths of a millimeter. The double oval incision proved to be the most practicable. The operation is performed in such a manner that the part to be amputated is well strapped and the principal arteries compressed. The loop is then applied in such a way that the proximal ends of the loop lie over the principal vessels, so that they may be divided last. After the skin and subcutaneous cellular tissue is divided all around the action of the battery is interrupted long enough so that the skin may be folded back for about an inch. After this the muscular tissue is divided as high up as possible, the periosteum pushed back for half an inch, and the bone divided by a saw. The length of the operation varies from ten to fifty minutes. The advantages claimed for this procedure are that the operation is practically a bloodless one, that the number of ligatures is small, that secondary hemorrhage never takes place; the shock is inconsiderable, as well as the pain following the operation, while traumatic fever is never very marked. The danger of pyæmia is not lessened and perfect union is retarded. The principal indication for its use is anæmia.

CROTON-CHLORAL IN CERTAIN FORMS OF MEGRIM.—Dr. Sidney Ringer included under the term megrim the affections commonly known as sick-headache, bilious headache, nervous sick-headache, and hemicrania. He described the phenomena of an attack, and with regard to its pathology said that, though the affection was seated in the nervous centers, the frequency and severity of the attacks depended on peripheral exciting causes. The treatment included that of the central nervous affection, the removal or prevention of exciting causes, and the treatment of the paroxysm. Having referred to bromide of potassium as being often useful in a twofold sense, Dr. Ringer said that, remembering how closely megrim is allied to neuralgia, and how useful chloral hydrate is in facial neuralgia, he had been induced to try this remedy in megrim, and had found it useful in cases of the continuous form. Dr. Ringer further said that croton-chloral may be given in doses of five, ten, or fifteen grains. He had given ten grains every hour for a fortnight without any unfavorable symptoms. He recommended five grains every three hours in ordinary cases of megrim, and the same quantity every two hours in severe attacks. With regard to the use of *combination* of drugs in megrim, he said he had found cannabis indica, in conjunction with other drugs, the most useful form. Dr. Ringer had not found phosphorus successful. (British Medical Journal.)

TREATMENT OF GLYCOSURIA WITH CARBOLIC ACID.—Drs. Ebstein and Müller contribute an interesting paper on this subject to the *Berliner Klinische Wochenschrift* for December, 1873. They suggest that abnormal fermentation may in many cases cause or permit the occurrence of glycosuria. They consider that carbolic acid may thus be useful in checking the formation of the fermenting principles, and they prefer carbolic acid to creosote, as being more definite in composition and in being tolerated in much larger doses. Two cases are recorded in which the most marked benefit resulted from the treatment, the sugar disappearing from the urine while the patients were taking the carbolic acid. A third case is, however, mentioned in which the carbolic-acid treatment was unavailing. The following is the author's formula: a gramme of crystallized carbolic acid in twenty-five grammes of distilled water and fifty grammes of peppermint-water. Six or seven table-spoonfuls of this are given daily. (Edinburgh Medical Journal.)

PARENCHYMATOUS INJECTIONS OF CARBOLIC ACID.—Hüter writes, in the *Centralblatt*, that he has employed this method of treatment with success in arthritis of the knee, in subacute adenitis, and in traumatic erysipelas, etc. He asserts that it immediately relieves the pain and quells the local fever. *(Ib.)*

TREATMENT OF ERYSIPELAS BY SUBCUTANEOUS INJECTION OF CARBOLIC ACID.—Dr. Aufrecht *(Centralblatt)* practiced injections of carbolic acid in doses of 0.60 centigrammes in ten cases. Not only were the erysipelatous swelling and redness rapidly dissipated, but the temperature, pulse, and general health were remarkably improved. *(Ibid.)*

SULPHATE OF CADMIUM IN ACUTE URETHRAL BLENORRHAGIA.—Dr. Gazeau prefers this agent as an injection to sulphate of zinc, its astringent action being more energetic and persistent. In chronic blenorrhagia of some years' duration the sulphate of cadmium is useless. *(Ibid.)*

CAMPHORATED PHENOL.—Dr. A. Henry reports, in the London Medical Record, on Bufalini's conclusions as to the therapeutic uses of camphorated phenol. It produces the same effects as, but is less dangerous than, and is not attended with the disadvantages of, carbolic acid. It may be used both externally and internally. It modifies unhealthy wounds, and destroys the parasites which are present in certain diseases, as septicæmia and typhoid fevers, etc. Bufalini describes two methods of preparing the compound. *(Ibid.)*

ACTION OF EUCALYPTUS.—The investigations of Theodor Siegen as to the action of eucalyptus are summarized by Dr. T. Lauder Brunton, in the London Medical Record, February 4th. Eucalyptol, according to Siegen, exerts quite as powerful an antiseptic action as quinine. It hinders alcoholic fermentation and depresses the temperature of the body more than quinine. Eucalyptol, like quinine, hinders oxidation in protoplasm. Siegen considers that eucalyptol in large doses is of great use in the treatment of febrile diseases of respiratory organs, especially hooping-cough. In several cases it acted as an anthelmintic.

Dr. E. Burdel does not appear to think so highly of this drug. He considers that as a febrifuge it is slow and inconstant in its action, and in the treatment of ague he finds it in every respect inferior to quinine. *(Ibid.)*

A CASE OF HYDROPHOBIA IN A CHILD.—Dr. Addison H. Foster gives, in the Chicago Journal of Nervous and Mental Disease, the following detailed account of a case of hydrophobia which he recently saw:

"Friday, August 14th, was called to see V. S., aged four years, for what was described as 'sickness of the stomach,' with 'strange breathing spells.' At ten A. M. I found the patient, who had always been strong and healthy, sitting up in her crib and gently rocking herself. Her skin was natural; pulse about 90, soft, strong, and regular; pupils natural; the tongue slightly coated, except along median line, where it was quite red. There was frequently a little nausea, but no vomiting; no disturbance of the bowels; urination natural. The child did not complain of pain, and was perfectly conscious and rational.

"Her conduct during this visit was as follows: she would remain quiet for a few minutes while her mother gently fanned away the flies; but if one lighted on her face she would start as suddenly as if she had received a shock of electricity, look wildly about in a frightened manner, catch her breath, throw back her head, toss her hands about as if repelling some one, and then again become quiet and natural. At other times she seemed to imagine that a fly had alighted on her face, and would go through a similar spasm. If the fanning was even gently increased, or if any one passed by her quickly, or a draft from the door or window was allowed to strike her, she would suddenly catch her breath in a kind of suffocating fit. If any one blew in her face, the acuteness of the cutaneous hyperæsthesia was instantly shown by her tossing her hands, throwing herself back in a very frightened and agitated manner, and catching her breath in a succession of short, hurried, convulsive or sobbing inspiratory movements, but always relapsing again in a few moments into a quiet and natural condition.

"She had eaten nothing since she first began to complain, on the evening of the preceding Wednesday, and had swallowed only two or three tea-spoonfuls of tea or water. She had, however, repeatedly called for water, coffee, tea, beef-tea, etc., all of which had been prepared and offered only to be pushed away with the words, "I can't take it," followed immediately by the kind of spasmodic attack already described. My merely taking up a glass of water on the table across the room and asking her to drink for me brought on one of these attacks.

"On inquiry as to whether she had ever been bitten by a dog, or had been playing with one, the parents, with unfeigned surprise, looked at each other and said that she had been bitten some weeks previously, by a small pet dog, on the left cheek, where the mark was still visible. The bite drew blood, but healed readily in four or five days. There was no sign in the cicatrix of the 'recrudescence' spoken of by Dr. Watson. I told the parents that I suspected hydrophobia, and left the fluid extract of belladonna to be rubbed along her spine and some calomel to be placed on her tongue, with instructions to keep her as quiet as possible.

"Once during this visit she fell asleep for a few minutes, lying on her side, but suddenly woke up very much agitated, apparently terribly frightened, and immediately went into a convulsion. This was the only kind of sleep she had had since she first went to her parents, Wednesday night, between eleven and twelve o'clock, saying that she 'did n't feel good.' They supposed that she had been too much exposed to the sun, though, as they stated, she had all day appeared as well as usual, had eaten her supper of bread and milk, and had gone to sleep as on any other night. The effect of the wind upon her was first noticed Thursday, after dinner, when she went out walking with her father. A breeze striking her she caught her breath, saying, 'The wind blows too hard; I must go back.' This sensibility gradually increased from this time. At half past twelve o'clock Dr. Clarke saw her with me. He confirmed my diagnosis with his experience of three or four cases. He tried the effect of a current of air upon her legs, unknown to her, which produced the same terrible suffocating spasms and general agitation. These seemed to grow more intense and prolonged, and were accompanied with a more or less livid appearance from deficient aëration of the blood. When they passed off she resumed her play with her checkermen, and continued to be amused with them between times all day; whereas, whenever she had been ailing before, the parents said 'no one thing would amuse her five minutes at a time.' At this visit her pulse was 120, and not so strong and regular.

"At five P. M. Drs. Bridge, Garrett, Damon, Whidden, and Harroun saw her with me. Her general appearance and behavior were much the same as at noon, with the addition of some froth appearing on her tongue, with the nausea and spasms. Her pulse was faster, ranging from 120 to 150, weaker and more irregular; the pupils widely dilated, although only one application of belladonna was successfully made, at about eleven o'clock, on account of the spasms it provoked. None of the physicians present hesitated to pronounce it a genuine case of hydrophobia. Ten-grain enemas of chloral hydrate every two hours were suggested, and one was given at about half past seven in the evening, but with so much apprehension and spasmodic difficulty on the part of the little sufferer that the next attempt was unsuccessful.

"Two hours after the chloral injection it had produced no apparent effect. The pupil was even more widely dilated; pulse more rapid, weak, and irregular; the froth increasing; the surface heat seemed but little increased, though no thermometric observation was taken. She was still perfectly rational and conscious, and played with her checkers between the attacks. She complained a few times of severe pains in her left eye, but not from the light. In the course of the afternoon she succeeded in taking two or three tea-spoonfuls of tea, which was the last of any thing that she was able to swallow; for, although she often cried till near her end how hungry she was, she always appeared greatly distressed if food was offered her. The sound or sight of pouring fluids never disturbed her.

"Between eleven and twelve Friday night the parents state that she grew more violent, and toward morning almost incessant in her sufferings, throwing her arms and legs over the sides and end of the crib, being kept in place with great difficulty. At times in the spasms there was opisthotonos. The froth grew more abundant; and many times that night, before being entirely out of a spasm, she would seize a cloth, wipe it across her mouth, and throw it spitefully away.

"At nine o'clock Saturday morning patient was lying on her back, comparatively quiet, and evidently in a moribund condition; limbs flexed and jerking, but neither rigid nor cramped; thumbs not drawn in; legs purple and covered with a cold, clammy sweat; no pulse or cardiac impulse perceptible; pupils widely dilated and strabismic, intensely injected with a profuse puriform accumulation, especially in the left eye. Her breathing in different parts of the minute ranged from forty-eight to ninety-six respirations per minute. It was still slightly influenced by blowing in her face, but the flies did not disturb her.* Her bowels had moved several times during severe spasms; frequent vomiting of a viscid froth, a dessert-spoonful each time; was apparently unconscious, and had not spoken for over an hour. She soon grew more quiet in manner and respiration, and less responsive to blowing in her face, and was evidently slowly dying, when all at once every muscle of her body seemed to go through a slow convulsive transformation from rigid contraction to utter relaxation, while a deathly purple crept over her features, and that was the last. No unusual post-mortem appearances were noticed except some degree of discoloration about the eyes; no frothing or purging in the agony; no tumefaction in the abdomen, and no *rigor mortis* for several hours after her death. No post mortem allowed.

"The points of interest in this case, as it appears to me, apart from the age of the child, are the apparently utter absence of all mental symptoms, the child retaining its consciousness and its capacity for being amused and diverted till near the last, while, according to the statements of its mother, in all the previous slight ailments from which it had suffered it had been more or less affected in this regard; the absence of all premonitory symptoms; and the rapid course of the disease, the first complaint having been made late Wednesday night, and death occurring about sixty hours later. It is possible indeed that some premonitory symptoms may have passed unsuspected; but the history of the case, as far as it could be obtained, does not state that any abnormal condition whatever was noticed or complained of before midnight Wednesday.

"The child was bitten about a week previous to the 4th of July, and the wound was healed by that time. The dog, a cross between a poodle and a Scotch terrier, had always been friendly and playful until within a few days of the time the bite was received. It then became cross and snappish, and inclined to hide itself away in holes dug in the garden. Its behavior was attributed to the heat of the weather, and partly also to the effects of teasing by the neighbors; rabies was entirely unsuspected. After the child was bitten the dog was tied with a cord, which it soon gnawed apart, and commenced quarreling with another dog, a very unusual thing for it to do. On being tied again it again broke loose and stayed away for a day or more. On its return it was observed that it appeared to be very tired, hungry, and thirsty, but it refused to touch either water or food. It was finally killed because, as it was said, 'it was cross.' One other person, a man, was bitten in the thumb by the same animal. He immediately sucked the wound, and has expressed no alarm, and has as yet experienced no ill result."

HYSTERIA, NEURASTHENIA, SPINAL IRRITATION, AND ALLIED AFFECTIONS.—Dr. George M. Beard, of New York, furnishes to the Chicago Journal of Nervous and Mental Disease an interesting report of cases under the above title, in which he writes:

"By hysteria and allied affections I mean that large and increasingly numerous class of affections that pass among the people and among the profession by the vague and half-erroneous terms spinal irritation, nervous exhaustion, general debility, general neuralgia, etc. In a work on which I have been long engaged, and which is now slowly progressing, I hope to be able to unify these diseases—to show that they have in general a common pathology, a common history, a common group of symptoms, and a common therapeutics. I shall seek to show that these diseases or symptoms of disease—or, as they might perhaps with better justice be called, results of disease—are expressions of a common nervous diathesis; that they are all liable to run into each other, and to act vicariously to each other; that they are a part of the price we pay for civilization, being confined mostly to the enlightened peoples of modern times; and that they are, in all their dreary shapes, most abundant in the northern portions of the United States of America.

"I treat all these affections, by whatever name known, on the same general principles, varying and adapting the method according to individual need. Of the various methods of using electricity I depend mainly on *general faradization* and *central galvanization*, using them sometimes in alternation; in some cases finding the former, in others the latter, more beneficial. Internally I use preparations of phosphorus and cod-liver oil, and sometimes arsenic. I make a large use of the cod-liver-oil emulsion. I have seen good results from the oxide and phosphide of zinc and chemical food. Externally I use ice and hot-water bags to the spine with studious caution, and mild and cautious counter-irritation to tender points on the spine. My method of counter-irritating nervous patients is to take one of Alcock's porous plasters and cut off a piece of about the size and shape of my little finger; along the center of this I place a little Spanish-fly ointment, and then apply over the tender spot and let it stay there until it falls off. Counter-irritation thus used is not very annoying, and is quite effective. I use Alcock's porous plaster because it sticks better than any thing I can find. I use all these remedies, or several of them, simultaneously."

ON THE ACTION OF MUSTARD, NITRITE OF AMYL, AND ERGOTINE ON THE CEREBRAL VESSELS.—The Chicago Journal of Nervous and Mental Disease contains a translation of an article by Dr. Max Schueller, based on a series of experiments performed on rabbits with the view of determining the action of certain medicines on the cerebral blood-vessels, from which we abstract the following:

"*Mustard.*—Sinapisms do actually reduce cerebral vascularity after continued application, and the effects noticed on man are the consequence of this action; however, too much ought not to be expected from small sinapisms, as proportionately-sized plasters had no effect whatever on the vessels of animals. Indications for their employment are of course out of place. Suffice it to say that the previously *assumed* depletion of the brain has been verified by experiment.

"*Nitrite of Amyl.*—The supposed relaxing effect of nitrite of amyl on the cerebral vessels is an actual fact, and I can only hope that this confirmation of the previous theory will increase the therapeutical employment of the remedy, as its effects on man are equally rapid and marked, passing off again after the usual inhalation of but a few seconds, without any unpleasant consequences. As far as could be deduced from my experiments, good effects can be expected from the agent in any morbid state depending on a contraction of cerebral vessels; in other words, intercranial anæmia, as in hemicrania sympathico-tonica, epilepsy, syncope, some forms of hysteric convulsions, perhaps also in tonic convulsions; as well as a powerful stimulant in threatening cardiac or respiratory paralysis.

"*Ergotine.*—The use of ergotine is increasing daily, and my researches, confirming as they do the clinical observations on its action, can only tend to enlarge still more the field of its usefulness. In congestion of the brain, in chronic cerebral hyperæmia attended with cephalalgia (consequence of hemorrhoids), I have employed it with good success. The symptoms abated in a few days, not re-appearing often for months. I have also tried it in a case of marked symptoms of cerebral congestion and compression, probably caused by a tumor, with almost instantaneous effect on the very intense headache, with spasms of some muscles, frequent, full pulse, temporary unconsciousness, vomiting, etc.; the attacks recurring every fortnight and lasting several days. On giving twenty grains of extract secal cornut. within two days, the symptoms, at the time of unusual intensity, ceased on the second day, and on the third the patient could walk about, and the pulse was normal. The disturbances of co-ordination, staggering gait, unsteady tongue, etc., which formerly had troubled him very much after the attacks, had now no greater intensity than during the intervals. Finally the intervals were prolonged."

TREATMENT OF GONORRHEA.—At a late meeting of the Société de Médecine de Rouen M. Bedoin, surgeon to the Third Hussars, observed that cubebs and copaiba entered into the composition of most of the remedies employed for the relief of blenorrhagia. In many instances they prove useless, and M. Bedoin does not believe they merit the favor in which they are held. Having had charge of a large number of cases, he has adopted a special plan, the principal features of which are as follows: as soon as the inflammatory period has passed he gives to his patients four or six injections per diem of the solution, composed of crystallized sulphate of zinc, twenty parts; crystallized subacetate of lead, twenty parts; distilled water, one thousand parts; the mixture being well shaken each time it is used. As the discharge diminishes the number of injections is gradually reduced to one a day, till not the slightest oozing takes place from the urethra. Toward the end of the attack a little wine is given, and the quantity of this is gradually increased till the disease is cured. Owing to double decomposition, the fluid contains sulphate of lead in suspension and acetate of zinc in solution, which last has a powerfully astringent action. Of seventy-two cases thus treated only thirteen failed to be cured. In the discussion which followed M. Bouteiller gave the formula for an injection very successfully employed by M. Vidal de Cassis; namely, rose-water, two hundred and fifty to three hundred parts; subacetate of lead, one half to one part; sulphate of zinc, one half to one part; laudanum, four parts. Two injections per diem. M. Bouteiller himself, however, frequently prescribed the acetate of zinc. M. Grout found injections containing the nitrate of bismuth very advantageous. (Practitioner.)

ON STRAPPING THE CHEST IN PHTHISIS.—Dr. John McCrea, medical officer to the Belfast Dispensary, after what he states is a very large experience, says, in the London Lancet:

"I have seen no remedy equal strapping the chest in efficiency and general applicability; at the same time the use of other remedies is not interfered with. The plasters used in strapping are quite able to bear the strain of walking and talking, so that gentle exercise and conversation are not forbidden, and indeed I have seen both rendered enjoyable where they had previously been irksome. I have not met with a case in any stage of the disease in which there was ground for attributing any bad result to the restraint of the chest.

"I have recently made an improvement in the apparatus, which diminishes the frequency of the renewal of the plasters and strengthens their grip. The following description contemplates their application to the upper part of the chest. I have principally used emplastrum roborans spread on swan's-down. The sheet, which is half a yard wide, is to be cut into transverse strips. Each strip is eighteen inches long; the breadth should be about three quarters of an inch. The plasters should be only very slightly heated. The first strip runs up the back in the space between the spinal column and the posterior border of the scapula on the affected side, its starting-point being well below the level of the inferior angle of the scapula. It is to be applied gradually and deliberately, every portion being well rubbed in before the next portion is brought into contact with the skin. It is to be carried over the shoulder and down the front of the chest. In rounding the shoulder it is to be pulled tight and held so while it is being, bit by bit, brought into contact with the front of the chest, the chest just at this period being in the act of strong expiration. The next strip, which is horizontal, commences at the spine, crosses the posterior end of the first strip, passes under the axilla and on toward the sternum. It also is to be applied deliberately and with friction; as it is rounding the chest it is to be pulled tight, the patient at the same time making a forced expiration. Other strips are to be applied in a similar manner, vertically and horizontally time about, until it is judged that a proper grasp of the chest has been obtained. I avoid the scapula as much as possible. Some of the horizontal strips should cross the sternum and some the spine. A large rectangular piece of plaster should now be applied, occupying the interscapular space and reaching down to the last dorsal spine. Another squarish piece is to cover the front and upper part of the chest between the clavicles and mammæ. These, if smoothly applied, secure the ends of the strips from ruffling up and give additional *points d'appui.* Finally the whole is to be well rubbed in all over. The patient is to sit quiet for a few minutes before dressing. The plaster soils the fingers, which, however, may be easily cleaned by rubbing with coarse paper and washing with a few drops of ether. The length of strip required of course depends upon the size of the chest and the extent of the disease. I always endeavor to control more of the lung than the portion apparently diseased. I have found it generally suitable to cut the plaster as above described. If too long, that may be easily remedied with scissors as each strip is applied. If too short—if, for instance, a vertical plaster beginning on the back does not reach sufficiently far down the front of the chest—let the next vertical plaster commence its course in front and at a sufficiently low point, and then be made to cover the former. This besides increases the rigidity of the apparatus, and rigidity undoubtedly is one source of its power.

"In a fortnight a re-application will probably be required. This will give a good opportunity for a careful examination of the condition of the lung. While the plasters are still on the indications of the thermometer will be most valuable. If there be an exacerbation of the symptoms—particularly of the cough, dyspnœa, or pain—if the temperature rise, or if the plasters be obviously slack, apply new ones. In an advanced case of phthisis in a girl the girl's mother told me that she herself could tell the proper time for renewal by observing the cough become distressing at night, and indeed it is common for patients to ask for a re-application. This illustrates besides the confidence felt in the plasters by those who have had experience of their effects. In early phthisis it is necessary to warn the patients not to mistake the amelioration of their symptoms for recovery; they should always be directed to come back. Possibly when they consider themselves quite well the thermometer or the stethoscope will indicate differently. These are the cases in which by re-applications—repeated re-applications, if necessary—we may hope for the most brilliant results. We obtain immediate and marked diminution of the cough, cessation of pain, relief of dyspnœa, and reduction of temperature; and the patient usually expresses at once a feeling of great comfort. In short, I am so satisfied with the results of the numerous cases in which I have tried this method that I give it the first place among all the remedies for phthisis."

THE DIAGNOSIS OF DISLOCATION AND FRACTURE OF THE SPINE.—In a recent clinical lecture, by Mr. Erichsen, on a case of dislocation of a cervical vertebra we find the following: "The diagnosis of dislocation from fracture at any given point of the spine is very difficult; but there is one symptom which has not been recorded elsewhere, so far as I am aware, which existed in this case, and which I have observed in other instances. When there is a fracture across the spine, with compression of the cord, you get paralysis of all the parts below the seat of fracture; and at the seat of fracture, and where sharp points of bone project, you get the spinal nerves at their issue irritated by the sharp edges of the fractured bone. You will therefore almost invariably find paralysis of the parts below, but none in the parts above, the seat of fracture, and there is *intense pain at the line of junction of the paralyzed and non-paralyzed parts; e. g.*, in a fracture across the spine in the dorsal region every thing is paralyzed from the seat of fracture downward, but there is intercostal neuralgia at the line of junction of the paralyzed and non-paralyzed parts. In dislocation, on the other hand, you may get paralysis, but you do not get neuralgia. Had it been fracture of the spine in this case, you would have had a line of hyperæsthesia between the paralyzed and non-paralyzed parts. The great probability in all cases of severe injury to the spine is that there is a fracture."

Notes and Queries.

THE ILLNESS OF THE LATE DR. ANSTIE.—The following, from the pen of Dr. R. Brudenell Carter, the medical attendant of the lamented Dr. Anstie, possesses a mournful interest just at this time:

"It has occurred to me that all the readers of the Practitioner, whether they were personally acquainted with the late editor or not, will be desirous to know whatever can be told them about the causes and manner of his premature and much-lamented death.

"During the month of August Dr. Anstie, who was engaged in the preparation of a second edition of his book on neuralgia, and who had otherwise undertaken a good deal of literary work, was at the same time called upon for an unusual amount of professional exertion, both as regards the number and the distance of his patients. His family went to a country house at Finchley, but he was compelled to forego a holiday, and to be content with occasional visits to them. Fully occupied in the day, I believe that he also sat up to a late hour of the night. He complained of feeling tired and jaded, and he had of late begun to look older than his years.

"On Saturday, the 5th of September, he expressed himself to me as being worried and overdone; and gave me an account of an investigation in which he was engaged, which had for its object to discover the causes of a sickness and mortality which had visited the schools of the Patriotic Fund at Wandsworth. He described certain insanitary conditions which had existed in these schools, and told me that he meant to spend the whole of the following afternoon in examining them, and that he hoped to discover all the causes of mischief. The children who had died had suffered from sudden and acute idiopathic peritonitis, which terminated fatally in a few hours from the commencement of the attacks.

"On Tuesday, the 8th of September, Dr. Anstie called upon me about ten o'clock at night. He said that on Sunday he had taken part in the post-mortem examination of one of the children who had died of peritonitis, that during this examination his finger had been wounded by a needle, and that he was very uneasy about it, as he 'felt poorly.' He said also that he had sucked and washed the little wound as soon as it was inflicted.

"The only idea that occurred to me in connection with this accident was that of local mischief, and I examined his finger carefully. The scratch was over the middle of the dorsal aspect of the second phalanx of the medius of the right hand. It was perhaps a third of an inch long, and was covered by a little dried exudation, around which was a red margin not exceeding a line in width. There was no swelling, no increase of temperature, either in the phalanx or in the finger generally; no uneasiness either in the hand or in the arm, and no restriction of movement. I said that I thought no harm would come of it, and he replied that I had relieved his mind, and that he would go to bed at once and have a good night's rest.

"On the following day, Wednesday, the 9th, I did not see him. I called at his house in the evening, but he had gone out to dinner. His servants said that he seemed 'very poorly.' I learnt afterward that he had been so chilly that he had a fire lighted, and put on an overcoat while sitting by it; and also that it hurt him to move his arm, so that he required assistance in order to take his overcoat off and to put it on again. At dinner he ate little, and seemed depressed in spirits.

"On Thursday morning, the 10th, about ten o'clock his servants sent for me to see him. I found him in bed, with a perfectly dry, hot skin, a tongue so dry that he could scarcely articulate, and complaining of intense headache. The urine passed during the night was of natural aspect. I knew that he had more than once had a sharp attack of ephemeral fever from some comparatively trifling cause, and also that when restless or in pain (he formerly suffered much from neuralgia) he sometimes took a dose of morphia. It struck me that the dry tongue might be due to such a dose, and I saw nothing to make me think very seriously of the case. I looked at the finger, but the red margin around the crust had disappeared. I advised him to take a minim of tincture of aconite, in water, every hour until diaphoresis was produced; and, with his concurrence, wrote the necessary prescription.

"In about three hours I visited him again. The skin was still dry and hot, the tongue still dry; the head, he said, was in less pain. I inquired about morphia, but he had not taken any; and he assigned as a reason for not having done so that his bowels had not been relieved for four days. He had taken two aloetic pills just before my visit. I told him to stop the aconite, and to take citrate of ammonia in effervescence, with the ammonia in excess. He was also to drink freely of Apollinaris water, and to have a pint of milk and a cup of beef-tea during the afternoon.

"At eight P. M. I found the state of the skin unchanged, but the tongue less dry. The bowels had been moved several times. There was still much headache, and he complained for the first time of severe pain in the right pectoral region. The face looked dull and heavy, and he had been very restless, rolling and turning about on the bed and disarranging the coverings. The servants said that he had been wandering in his mind, but he answered me quite rationally when I spoke to him; and I thought they had been deceived by the state of his tongue, which rendered his speech difficult to understand. His pulse was 96; temperature 103.5°. I desired him to continue the citrate of ammonia, the Apollinaris water, the milk, and the beef-tea, left a trusty servant in charge for the night, and wrote to Mrs. Anstie to inform her of his state and to ask her to return home without delay.

"On Friday morning matters were worse in all respects, and he complained greatly of the pectoral region. He had been very restless and distinctly delirious during the night, and could only be recalled to consciousness for a few moments. Mrs. Anstie arrived about half-past eleven, and he knew her, but his mind soon wandered away. I then asked for a consultation, and at three P. M. was so fortunate as to obtain the aid of Dr. George Johnson. The conditions were essentially unchanged, except that the temperature had risen to 105.1°. No mischief within the chest could be discovered by auscultation, but the tenderness of the pectoral region was extreme, so that the lightest touch of a finger produced an exclamation of pain. There was no pain, swelling, or tenderness of the arm; but on the side of the chest, at the lower border of the axilla, there was a patch of cutaneous redness, very irregular in outline, and which, if it had been circular, would probably have been two and a half inches in diameter. There was no tenderness here, no hardness, no swelling, and the redness disappeared under finger-pressure, to return when it was removed. The greatest tenderness was over the body of the pectoral muscle, but here also no swelling or hardness could be detected. Dr. Johnson suggested that the mischief might perhaps localize itself in this part as phlegmonous erysipelas. He approved of what I had done, and concurred with me in thinking it undesirable to give alcohol while the skin remained perfectly dry. At nine P.M. we met again, and Dr. Burdon-Sanderson gave us the benefit of his assistance. A very copious perspiration had commenced about half an hour before the visit, but the temperature was still over 105°, and the other conditions were unchanged. We determined to apply a poultice over the painful pectoral region, to give half an ounce of brandy every hour, and to continue the other treatment. At three A.M. on Saturday I saw the patient alone, and thought him a little better in all respects. The perspiration had continued in a moderate degree, the restlessness had much abated, the temperature had fallen to 102°, and the expression of the face had improved, so that I was greeted with something of the natural smile. At nine A.M. I again met Dr. George Johnson, and we then found that pleuro-pneumonia of the right side had developed itself, and that the urine was loaded with albumen. The general symptoms were somewhat lightened, the expression of the face continuing better, and the temperature having fallen to 101°. The red patch and the general conditions of the axillary and pectoral regions remained the same, save that the tenderness was less apparent. The pulse, which had never before exceeded 96, had risen to 110. Upon the whole we entertained a hope that the pleuro-pneumonia might be the only local change, and that the patient might struggle through; but at noon, when I next saw him, the pulse had risen to 120, with an occasional intermission. His brother-in-law, Dr. Buzzard, who had been telegraphed for, had just arrived, and while we were holding a consultation the nurse suddenly recalled us to the sick-room. There had been an effort at vomiting; the face and finger-nails were becoming livid, the power of swallowing was failing, and the end manifestly near. The symptoms seemed to point to the formation of a clot in the heart or great vessels; and at half-past two the last breath was drawn, fifty-two hours after I was first called to him on Thursday morning. No post-mortem examination was made.

"I have purposely abstained from expressing any opinion about the nature of the malady, and have confined myself to an endeavor to state the facts as they occurred."

THREE CASES OF CROUP, TWO BEING TREATED SUCCESSFULLY BY PEPSIN.—Dr. J. E. Brown, of Cloverport, Ky., has recently given pepsin in two cases of croup with very notable results, as witness the following report:

"*Case* 1.—A bright, fleshy boy, four years of age, had croupal symptoms for a week before I saw him. He was then breathing with great difficulty and with the peculiar croupal sound; countenance anxious; pulse 120; skin hot, but moist; tongue slightly furred. An emetic of alum and ipecac, iron and quinine in full doses, locally nitrate of silver and lime-water by the atomizer, all failed, and death ended the struggle in fifty hours.

"*Case* 2.—A boy, three and a half years old, had been sick some days with croupy voice and cough, and was really very ill when I was called to see him. He was directed the same treatment pursued in the first case, with the addition of grain-doses of calomel repeated every hour for six hours. The symptoms all grew worse. I now determined to test the solvent powers of pepsin, and so gave my little patient four grains of Scheffer's pepsin in powder, along with two grains of quinia, every two hours, bathed him in hot mustard-water, and applied sinapisms to all his extremities. In ten hours every thing had changed for the better. At almost every act of coughing large flakes of lymph were expectorated. Continued treatment for forty-eight hours, when the child's condition was so much improved that the cure was soon completed by tonics alone.

"*Case* 3.—A girl, four years old, had croupal symptoms for several days when I saw her. Aphonia complete; extremely labored breathing; pulse 120; excessively restless and anxious. I here gave pepsin and quinine at once, and used locally sol. nit. argent. with the atomizer. The symptoms grew better from the beginning of this treatment, and soon disappeared altogether. The membrane, which was not so well organized, came away in forty-two hours after beginning the pepsin.

"These two cases recovered in so extraordinary a manner under the use of pepsin that I shall certainly try it in such other cases of croup as may occur in my practice."

THE EFFECTS OF ALCOHOL ON THE SYSTEM.—Dr. Frederick D. Lente, of Cold Spring, N. Y., was recently appointed by the New York Neurological Society one of a committee to investigate the effects of alcohol on the system. He has begun his portion of the work by addressing a circular to his medical friends, in which he asks their attention to the following points:

"1. Can you refer me to any clinical reports illustrating markedly the good or evil effects of alcohol in the treatment of disease?

"2. To any facts, well authenticated, illustrating any prophylactic virtue in stimulants, especially as regards the tubercular diseases?

"3. To any clinical facts bearing on the question of the value of alcoholic drinks as a *food?*

"4. To any clinical facts, not contained in the ordinary treatises, illustrating its effects on the viscera, especially the stomach and liver?

"5. To any facts indicating a difference in the effects of alcohol as contained in distilled or fermented drinks respectively?

"6. To any facts indicating a difference in the effects of alcohol *per se* and alcohol as it exists in brandy, whisky, etc.?

"7. What effect has it in your experience among your wealthier patients, or *bons vivants;* such as drink good liquors *freely* and *regularly*, but not to intoxication, for a long term of years? Does it lengthen or shorten their life, or render it less or more agreeable? Please give *this* question your especial consideration, as a thoughtful answer to this is considered of especial importance. Will you indicate, if possible—very roughly, of course—what you consider the average amount of *alcohol* contained in the daily dinner-drinks of these gentlemen?"

We should feel under obligations to any of our readers who would reply to the above. It is only by the co-operation of the profession that such questions as these can be determined.